QL Today

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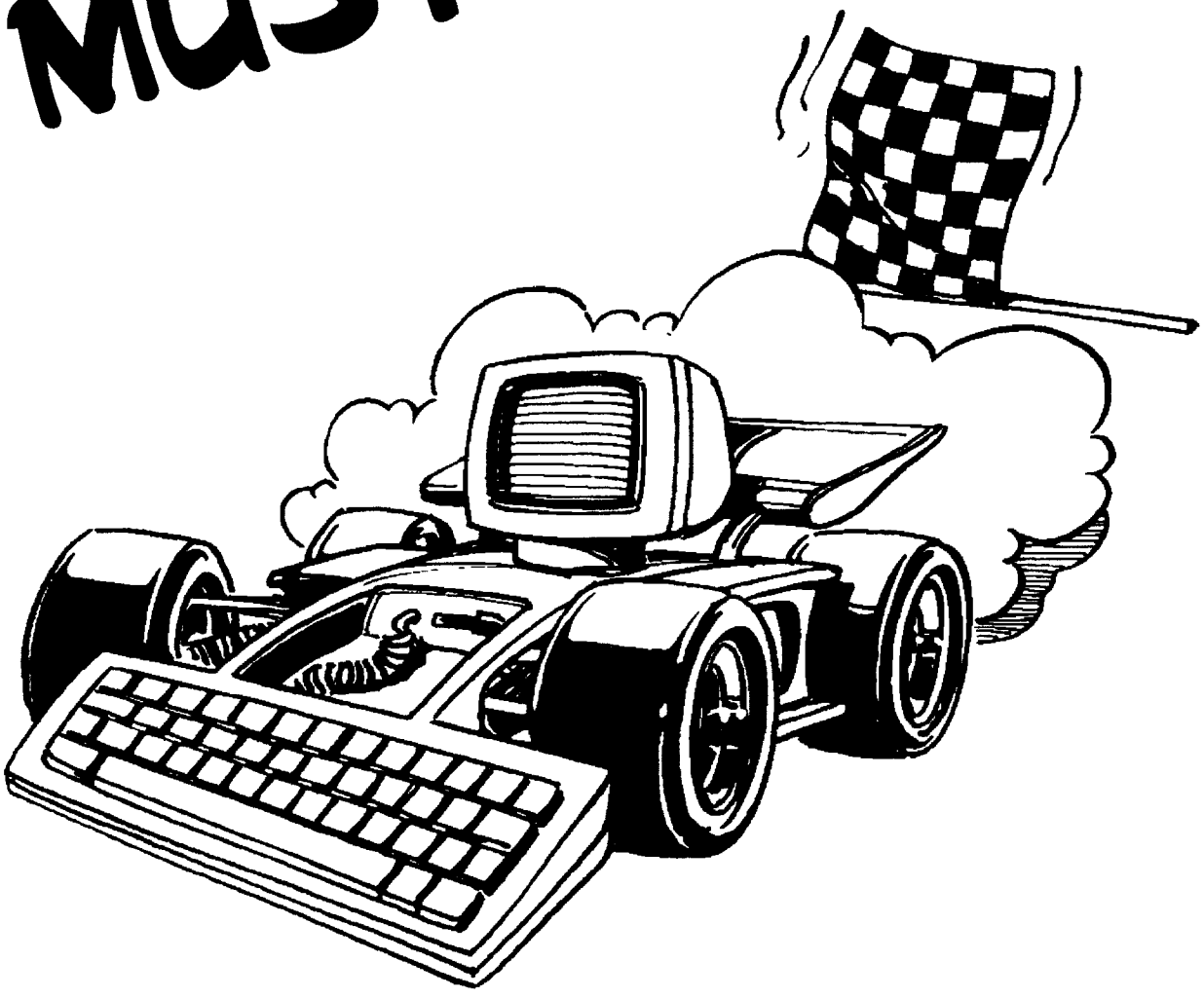
The Magazine about QL, QDOS, Sinclair Computers, SMSQ...

THE RACE MUST GO ON...



QL *Today*

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We welcome your comments, suggstions and articles. YOU make QL *Today* possible. We are constantly changing and adjusting to meet your needs and requirements. Articles for publication should be on a 3.5" disk (DD or HD) in ASCII, Quill or text87 format. Pictures may be in _SCR format, we can also handle GIF or TIF. To enhance your article you may wish to include Saved Screen dumps. PLEASE send a hardcopy of all screens to be included. Don't forget to specify where in the text you would like the screen placed.

Article and Advertising DEADLINES are as follows:

Issue 1: 15 April	**Issue 2: 15 June**
Issue 3: 15 August	**Issue 4: 15 October**
Issue 5: 15 December	**Issue 6: 15 February**

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in alphabetical order

Editorial I

First of all, I would like to thank Bob Dyl very very much for supporting the QL community for a long time with an excellent magazine. It would be a shame if the idea behind IQLR were not carried on.
Therefore, many "active" people helped in getting the first issue of **QL *Today*** out. Whether it becomes accepted or not is up to you. There are some new concepts in **QL *Today***, which you may or may not like. Feedback is welcome, because this magazine is addressed to you. If you like it, tell others (and us, if you want) - if you don't like it, tell us please.
The current issue you're reading at the moment was done in a real hurry, so please excuse the mistakes. Remember, it's the first try - but we hope, bearing this in mind, you find it acceptable.
The current issue is packed with a lot of articles. Print is slightly smaller, otherwise not everything would fit. We also use more space on a standard A4 page to get more information into **QL *Today***.
The prices for most subscribers could be brought down, as the heavy paper does not have to be shipped from the US to Europe and then posted individually. However, as the magazine is sent out from Germany and England the price in these countries is lower than elsewhere due to lower postage costs.
New is the small ads section. It picks up Bob's Mini Mart idea but reduces the cost to the advertiser.
Also new is the idea to add a section in German to **QL *Today***, which will be sent to current subscribers from JMS only and to future subscribers in German-speaking countries like Austria, Switzerland and whoever thinks he/she would like to have the German add-on. It is reflected in the DM 10,- higher price for German subscribers, but readers from abroad can book it for extra 10,- DM as well.
I would also like to apologise to everybody who was not contacted by me - time was simply too short! Some people I tried but could not get hold of the first or second time, so I had to carry on working on the magazine. Please feel free to approach me if you would like to advertise etc.
Special thanks go to everybody who made the current issue possible in just 6 days by providing us with tests, reviews, articles, and ads.

Jochen Merz

Editorial II

What do you want from this magazine?
Please help us. It is always a mystery as to exactly why some people do not take out a follow-on subscription to the magazine when their current subscription runs out. Indeed it is equally mystifying as to why others actually do resubscribe! What we would really like to do, of course, is produce the perfect magazine but in order to be able to aim in this direction we need to hear your views about what we're doing. If you find there is not much in the magazine that's for you then please tell us what you would like to see instead. On the other hand if there are types of article that particularly take your interest then tell us, otherwise they may disappear.
In the future we hope to have articles for everybody from beginners to advanced users. If there is something, either software or hardware, that you just can't get to grips with then let us know - the chances are that plenty of other people are having the same difficulty. Forthcoming subjects for articles should range from how to write programs, reviews of hardware and software, general computing, reports of meetings, new product announcements, histories of QL alumni, and so on.
Please send your correspondence to either Jochen Merz or myself at the Miracle Systems address. We look forward to hearing from you.

Stuart Honeyball

Editorial III

It gives me great pleasure to be associated with the launch of a new magazine for the QL, at a very important time for all QL users. My pleasure at the launch of **QL *Today***, though, is tinged with sadness about the serious illness of the International QL Report editor, Bob Dyl, a long time QL enthusiast. I can only wish Bob well for the future despite his illness, and to thank him for all he has done over the years.
QL *Today* is a new magazine produced by QL enthusiasts for QL users. We will work very hard to market it and to make a success of it. With so many "goodies" about to appear for the QL this year - QXL-GOLD, Aurora Graphics Card and new QL motherboard, the second version of the Super Gold Card (which I will call Super Duper Gold Card for now) and the QPC SMSQ/E software based QL emulator for the PC for example - we are in for an exciting year and more than ever there is a need for a magazine like **QL *Today*** to keep us all in touch. Why not write to let us know what you think of our inaugural issue, and let us know what sorts of articles you'd like.
I hope you'll enjoy reading **QL *Today***.

Dilwyn Jones

Beginners Basics Part 1

Yate, UK - Stuart Honeyball

If you are one the many who have never written a single line of Superbasic then this is for you. You will find just how simple writing a computer program can be. The trick is to remove the mental block of thinking that it's complicated when it's not.

I will assume that you have Toolkit II since it contains a superb editor taylor made for typing in Superbasic. If you have a TRUMP CARD, GOLD CARD, SUPER GOLD CARD, QXL [and ATARI's running SMSQ/E, ED.] then you already have it. In the manuals for these cards you will find a Toolkit II section. Toolkit II has also been available on Microdrive and ROM cartridge. You should also have the QL User Guide to hand which has information on Superbasic in the Beginners Guide and Keyword sections.

To get started I'll assume you've just switched on (or reset) the QL. At the F1/F2 prompt make sure there is no disk or Microdrive in and press either of these keys and you will see the cursor towards the bottom left. Now enable Toolkit II by typing in the following:

```
TK2_EXT
```

followed by pressing the 'Enter' key. It should be noted that any line you type in has to be followed by 'Enter' so that the QL knows when the line is complete. Also, it doesn't matter whether you use upper or lower case letters. In the future I will just say "enter the following line" implying that you press 'Enter' after it.

Superbasic allows you to execute a statement either as a command or as a program line. For instance enter the following:

```
PRINT "Hello"
```

You have just executed a command which has the effect of printing "Hello" on the default output screen.

Now type in a short program. Firstly get the Toolkit II editor running by entering:

```
ED
```

The cursor will now be at the top left hand corner. (For more information on ED refer to section 3 in the Toolkit II manual). Hit the 'Enter' key again and the line number "10" will appear. Enter:

```
INPUT Word$
```

and the next line number, "20", will appear. Enter:

```
PRINT Word$
```

Now hit the 'Esc' key to escape from the editor. The screen should read:

```
10 INPUT Word$
20 PRINT Word$
```

To run this program enter:

```
RUN
```

and the cursor will appear towards the top of the screen. The first statement, i.e. '10', is being executed and is waiting for something to be typed in. Enter any word you like e.g.

```
QLToday
```

The INPUT statement completes, the PRINT statement prints its output underneath and the program finishes giving you the cursor back to the command window (usually known as #0) at the bottom. To run the program again enter:

```
RUN
```

This time give it something different to print by entering:

```
Boring
```

Admittedly this program is of little use but it does show that a program is a list of commands executed sequentially. There is another program built into the QL called the interpreter that is called when you type in RUN and it actually runs the Superbasic program. Information can be fed into a program by the INPUT line and outputted by the PRINT. Both INPUT and PRINT are known as procedures. A combination of characters is called a string e.g. the "Hello" part of the above. "Hello" is also a constant since its value is always the same in contrast to Word$ which can take on different values e.g. "QLToday" or "Boring". The quotes around the string constant values and the $ at the end of the string variable name indicate to the interpreter that they are strings.

Superbasic can, of course, also handle numeric types of values. Let's suppose we want to write a program to be given a number and double it, then given a different number and double that, and then a third number, and stop running when the number 0 is given. Before going any further enter:

```
NEW
```

to clear out the previous program. It is essential before actually typing anything in to be clear about precisely what we want the program to do. Any program will consist of three parts. The first part is the initialisation where various things are set up, then comes the main body of the program where the real work is done, and lastly there is a finishing off phase. The main body is often done repeatedly as in this example. The initialisation in this example will just clear the screen of anything left over from previous work and set up the numeric variable QuitVal to the value we input to quit the program. The body will repeatedly input a number, look to see whether it is 0 and if it is then it will leave the repeating main body and jump to the finishing phase but if it is not 0 then it will work out what double the number is and print it out. The finishing off phase will display that the program is finishing.
Use ED, as before but edit the first line number '10' to be '1000', to type the following program in:

```
1000 REMark Initialise by clearing the screen
1010 CLS
1020 QuitVal=0
1030 :
1040 REPeat Doubling
1050   PRINT "Enter a number"
1060   INPUT Num
1070   IF Num=QuitVal
1080     EXIT Doubling
1090   ELSE
1100     DoubleNum=Num*2
1110     PRINT "Double"!Num!"is"!DoubleNum
1120   END IF
1130 END REPeat Doubling
1140 :
1150 PRINT "Good-bye"
```

Lines 1030 and 1140 do nothing except except visually split the program into its 3 phases: the initiliasing, the main body and the finishing off. It is essential to write a program in such a way as to make it readable and easy to understand. If you do not do this then when you come back to edit it later you will not understand what it is supposed to be doing. Line 1000 is a comment; the REMark tells the interpreter to ignore the rest of the line but its use is to explain to the reader of the program what's going on. The CLS is a built in procedure that clears the screen. Look at line 1020. QuitVal is a numeric variable into which is loaded the special number I have decided to use to show that I want to leave the program. After this line is executed QuitVal contains the value 0.
The body is contained within a REPeat...END REPeat loop which, as you might expect, just keeps repeating the statements it brackets. I have given the repeat loop the name Doubling. Always choose a relevant sensible name even if it means extra typing - it helps enormously when you come back to read the program weeks or even just minutes later. The block of statements bracketted by the loop construct is indented. Again this does not affect the functionality of the program but shows the structure making it more logical to read.

Each pass round the loop starts with line 1050 putting a message on the screen prompting the user to enter a number. A good program will always tell its user not only when it is time to do something but also what to do. Line 1060 puts the number the user gives into the numeric variable Num. Note that the names of variables are chosen by the programmer. You could choose the word Number if you prefer but Num seems clear enough to me. The words in capitals are reserved words which are predefined by the interpreter.
Next we come to the IF..ELSE..END IF structure. The '=' is line 1070 compares the value of Num with the value of QuitVal. It is somewhat confusing that the '=' here compares where as in line 1020 it assigns. If Num does actually equal QuitVal, i.e. if the INPUTted value is zero, then the block of statements between the IF and the ELSE are executed which would cause control to leave the Doubling loop and pass straight on to line 1150. If the values are not equal then the block of statements between the ELSE and END IF are excuted in which case another variable DoubleNum is assigned the value Num multiplied by 2 and this is PRINTed out with suitable string constants to make it understandable to the user (look at the QL User Guide for an explanation of the PRINT statement). Notice that only 1 of the 2 blocks of statements in the IF..ELSE..END IF structure is executed and that for readability each is indented.

After the END IF the END REPeat statement indicates the end of the loop where control is passed back to the beginning of the loop, i.e. line 1050.
After the loop has been EXITed control passes to the line 1150 and a suitable message is printed out so the user knows the program has finished. This line represents the finishing phase of the program.
Now all that's left is to RUN it to try it out. (Remember that to leave the program you just enter 0.)

If you have been tempted to use the GO TO command to create a loop or as part of an IF statement then don't. There is no place for GO TO in a program. Using GO TO destroys the structure and turns a program into unreadable spaghetti. Never use GO SUB either. All the necessary commands for contructing loops and conditional statements (e.g. IF) are contained within Superbasic.
You could get rid of line 1020 and alter line 1070 to read

```
1070  IF Num=0
```

but months later when you came back to look at the program you would ask why that 0 was there. This is commonly known as a magic number. For clarity get rid of magic numbers by setting their values into variables with meaningful names at the beginning of the program.
To sum up, for good programming follow these guidelines:
1) Construct the program with 3 distinct parts: the head, body and tail.
2) Write down in plain language a list of things the program has to do.
3) Choose meaningful names for structures and variables.
4) Indent blocks.
5) Avoid magic numbers.
6) Always indicate to the user when and what reponse is required.
7) When outputting indicate to the user what the output refers to.
8) Wherever the program function is not obvious provide comment via the REMark statement.
9) Use the appropriate structures provided by Superbasic.
If you follow these guidelines then your programs will not just be easy to edit but also bug free. ■

My BOOT

Duisburg, Germany - Jochen Merz

I have the impression that still, after 12 years of QL & QDOS, there are still some people who have problems in writing their BOOT programs. Especially users without a harddisk still use the reset-boot one program, reset-boot the next program style of "multitasking". Understandable, as no-one has really shown them how to set up their own BOOT properly. In the following article, I do not explain hypothetical BOOT files, I just list my own and explain why I do what. It is a very complex BOOT, and I don't expect everybody to understand all the details. However, if one finds one half or a quarter of the information useful and modifies his/her own BOOT to be more useful for the daily work, then I think it was worth the effort.

As you can see, my BOOT will handle 4 different machines: 0 - Stacy, a portable ATARI with a harddisk and monochrome display. 1 - Mega STE, the machine which previously handled the mailboxes, with QVME card, 14" monitor and harddisk (and optional removable harddisk) 2 - TT #2, which replaced the Mega STE, also with QVME, 14", harddisk and optional removable (but on SCSI-port), 2 modems on SER1 and SER2, parallel port connected to an EPSON Stylus Color 2, 3 - TT #1, my main working machine, which is connected via QVME to a 17" monitor, EPSON Laserprinter on parallel port, EPSON LQ-1170 connected to SER2, test-modem on SER1.

As you can see, all different machines with different hardware connected. You may not know some of the procedures and functions used (as you can see, I load a number of resident extensions), but don't worry, if you don't know them, and you can't find them in your system, you'll probably will not need them.

First, I check if the system runs on "JS" (old QL emulator software) or SMSQ/E. I am always using SMSQ/E, of course, but in case a customer has problems with something, I have to be able to see if it was actually working under QDOS/JS. Note that VER$ is not checked directly (bug in JS), it is first assigned to a variable. In case it is QDOS, I continue with a different BOOT.

```
100 o$=VER$:IF "JS" INSTR os$:LRUN "win1_boot_qdos"
```

I don't like the initial window colours very much, so all three windows are set to white ink on black paper, grey border.

```
110 FOR ch=0 TO 2:BORDER#ch,1,$FF:PAPER#ch,0:INK#ch,7:CLS#ch
```

For me, having a German keyboard and German error messages is what I prefer (although all the other software I use is mainly in English, even if German versions exist). However, German keyboard is essential.

```
120 KBD_TABLE d:LANG_USE d
```

All my resident extensions are in the subdirectory "rext", and all programs which are executed (via QPAC2, with EX or by HOTKEY) are grouped in the subdirectory "exec" - this makes life much easier!

```
130 DATA_USE win1_rext:PROG_USE win1_exec
140 :
```

Not really required anymore, but I have changed ATARI_rext for me to have some extra features in which I personally need - just forget about it.

```
160 LRESPR ATARI_rext
170 :
```

A short reminder for me, how the machines are numbered:

```
175 REMark 0=Stacy, 1=Mega STE, 2=TT 2, 3=TT 1
```

The MACHINE function returns 0 for Mega ST and Stacy, so this is okay by default (you know that SMSQ/E) initialises variables to 0). 9 is Mega STE, so it is converted to 1, 24 is for TT's. As my TT's are numbered 2 and 3, I had to think about a way to detect which TT is the current one. Fortunately, ATARI has put a range of DIP-switches into the machines (and only bit 6 and 7 are used, as far as I know). So I used bit 0 to define the machine number. The formula 2+(PEEKS... reads the DIP switch (high byte of the word) and shifts it 8 bits right, so that it becomes the low byte of the word, i.e. resulting in 2+0 and 2+1).

```
180 SELect ON MACHINE
185  =9:mach=1
190  =24:mach=2+(PEEKS_W($FFFF9200)&&256)/256
195 END SELect
```

Now all the machines are identified, we can start loading bits depending on the hardware.

```
197 :
```

First, we set the display. The mailbox Mega STE and TT #2 use the same display facilities, same monitor, same resolution, so they can be handled simultaneously. I prefer having an inverted display on the Stacy, and the TT #1 (machine 3) has the highest resolution on the 17" monitor.

```
200 SELect ON mach:REMark Display
210 =0:DISP_INVERSE 1
220 =1,2:DISP_SIZE 880,600,60,31000,200,25
230 =3:DISP_SIZE 1024,600,75,31000,250,25
240 END SELect
250 :
```

Next comes the harddisk settings. It is rather complex, here a short explanation: Stacy, ST and STE can handle 8 ACSI devices, which are slightly reduced SCSI drives. They are numbered from 0 to 8. TT has ACSI and genuine SCSI, and the SCSI devices are numbered from 8 to 15. The WIN_DRIVE command accepts three parameters, the first being the WIN-Number (e.g. WIN1_, WIN2_ etc.), the second being the physical drive number (0 to 7 for ACSI, 8 to 15 for SCSI) and the partition number (0 to ...). WIN1_ is filled in by SMSQ/E automatically, otherwise - how would it boot!?

```
260 SELect ON mach
```

Harddisks Stacy and Mega STE are organised in the same way, to keep things easier. WIN2_ is a SyQuest removable harddisk, which is declared to be formattable (WIN_FORMAT). All the other drives are format-protected by default. WIN8_ points to a TOS partition (C:), so that I can update the SMSQ/E directly from within SMSQ/E.

```
270 =0,1:
275  WIN_DRIVE 2,1,0:WIN_FORMAT 2
277  WIN_DRIVE 8,0,0
```

Both harddisks on the TTs are organised in the same way, that's easier too. WIN2_ is a SyQuest removable, but this time connected to SCSI. WIN3_ is an optional second partition on the removable. Both can be formatted. WIN6_, WIN7_ and WIN8_ allow access to TOS partitions C: D: and E: so that I can transfer graphics and text files from and to TOS easily.

```
280 =2,3:
285  WIN_DRIVE 2,9,0:WIN_FORMAT 2
287  WIN_DRIVE 3,9,1:WIN_FORMAT 3
288  WIN_DRIVE 7,8,3:WIN_DRIVE 8,8,0:WIN_DRIVE 6,8,1
290 END SELect
300 :
```

Lots of resident extensions are loaded in now. QMON, JMON are essential for my work. Next follows QPTR and the QLiberator stuff.

```
310 LRESPR QMON:LRESPR JMON
320 LRESPR QPTR
330 LRESPR QLIB_bin:LRESPR QLIB_run:LRESPR QLIB_ext
340 LRESPR QREF_bin
```

QTYP is useful too, although I forget to use it most of the time (except for important documents).

```
350 LRESPR QTYP_SPELL
```

I have three differently configured QPAC 2's, because I prefer having the button frame at different positions depending on the resolution. Again, STE and TT #2 have the same resolution, so they can load the same version.

```
355 SELect ON mach
370 =0: LRESPR QPAC2
375 =1,2:LRESPR QPAC2_STE
377 =3: LRESPR QPAC2_TT
440 END SELect
```

The following extensions are VERY useful, as you know, COMMBAS_rext is something I have written for

myself. SDUMP is used for screen dumps (you get it with SMSQ/E).

```
450 LRESPR THING_rext:LRESPR MENU_rext
460 LRESPR COMMBAS_rext
470 LRESPR SDUMP_rext
```

I use Easymenu, so the following part of Easyptr has to be loaded.

```
480 LRESPR PTRMENR_cde
```

My Backups and file transfers are done using the excellent MIDINET software.

```
490 LRESPR MIDINET_rext
```

Loading QD as a resident extensions makes it much more flexible than just EXECuting it. If you have not loaded FileInfo 2 (yes, I know, it should be in my machine, but I still have not found the time to configure it properly for my system).

```
500 LRESPR qd
```

I prefer having a bolder system font, which I call SMSQ_FONT. This is declared to be the default font. After having defined a new default font, all jobs which will be started will use the new font. However, SuperBASIC (job 0) was already executing, so the fonts of the three channels have to be re-defined explicitely.

```
510 CHAR_DEF SMSQ_FONT,0:FOR ch=0 TO 2:CHAR_USE#ch,0,0
520 :
```

My centronics cable is quite long, so I prefer having a longer strobe pulse (just to make sure no byte can be lost). TRA 3 is the IBM-compatible translate, which allows me to use all the German special characters in QD, SBASIC etc...

```
530 PAR_PULSE 50:TRA 3
```

Ah, here comes the reason why I still like to have the ATARI_rext loaded - WSET allows me to have pre-defined BASIC-windows settings (and I OUTLN them immediately afterwards, so that I can use menus from MENU_rext).

```
540 IF mach<3:WSET -1,4:OUTLN
550 :
```

The following hotkeys mainly use programs which are in the "exec" subdirectory, so I set DATA_USE to point to it (just in case). PROG_USE still points to it.

```
560 DATA_USE win1_exec_
```

Don't know why I still have QRAM on a hotkey - I did not execute this for a very long time - QPAC2 does all the things much better anyway. I'll probably throw it out.

```
570 ERT HOT_LOAD('/','qram')
```

The following hotkey puts EVERY job to sleep when I press ALT ESC - even Quill, SBASIC etc.

```
580 ERT HOT_WAKE(CHR$(27),'button_sleep')
```

ALT # picks all my buttons to the top - I have assigned this key to be the "mouse hotkey" as well, 'cause I find it quite useful to have all buttons available immediately when I press both mouse buttons simultaneously.

```
590 ERT HOT_WAKE('#','button_pick')
```

The following hotkeys allow me to bring back my windows on a keypress into proper order. This is useful is you run some BASIC programs which redefine the windows. The same key is assigned differently for different machines (better said, different display modes) because the window origins have to be different on different resolutions.

```
600 IF RMODE=2
610 ERT HOT_CMD('(','CLOSE:OUTLN#0,512,132,0,124:WSET 0')
620 ELSE
630 ERT HOT_CMD ('(','CLOSE: OUTLN#0,768,279,0,0: window#1,360,279,408,0: window
#2,410,228,0,0: window#0,410,52,0,227: for ch=0 to 2: border#ch,1,4: cls#ch')
640 END IF
650 ERT HOT_CMD(')','CLOSE: OUTLN#0,512,200,0,56: WSET -1: PAUSE 5: MODE 4: HOT_DO "#"')
660 ERT HOT_CMD (CHR$(249),'CLOSE: OUTLN#0,256,279,512,0: WINDOW#0,256,42,512, 236:
WINDOW#1,256,102,512,135: WINDOW#2,256,136,512,0: for ch=0 to 2: BORDER #ch,1,4: cls#ch')
```

The following hotkey will pick me any no-name job to the top. The only no-name job which I ever came

across is SuperBASIC, so this is my key for picking SuperBASIC.

```
670 ERT HOT_PICK('<','')
```

This key will pick me every SBASIC which is running. It will not execute a new SBASIC, it is just for picking all running SBASICs in turn. However, it does not pick SBASIC's which have been renamed (using JOB_NAME) - which is quite useful, so that you can set up hotkeys just for picking dedicated SBASIC's.

```
680 ERT HOT_PICK ('>','SBASIC')
```

This will execute FiFi (I need FiFi quite a lot) or, if a copy of FiFi is buried under some other windows, it will pick it to the top.

```
690 ERT HOT_LOAD1('^','FiFi')
```

A similar hotkey for the QFAX fax viewer follows now, which will pick or execute me a fax viewer. I sometimes need to have more than one copy running (e.g. one to print a fax and another one to view a different fax) and I want to just pick them, therefore the '£' key is assigned to pick only.

```
700 ERT HOT_LOAD1('?','QFV')
705 ERT HOT_PICK ('£','QFV')
```

Alarm - I sometimes want to have more than one alarm in my machine, therefore ALT a pops up a fresh copy every time.

```
710 ERT HOT_LOAD ('a','ALARM')
```

Ah, now it is getting tricky! You remember that I LRESPRed QD some lines above, which created a Thing called "QD". The following hotkey will execute QD from that Thing every time when I press ALT b, but it does not re-load QD every time. This way, it is much quicker and it uses the memory once only, no matter, how many QD's are running. I usually have a few QD's running, especially when I program assembler, so I save a lot of memory. The string after the semicolon passes a number of parameter to this QD. It pre-defines some defaults (file-extension is _bas, path is win1_basic_ help-directory is win1_basic_help_ and it should use the SBAS/QD Thing right from the start). You already guessed it: this QD will be used for writing SBASIC programs.

```
720 ERT HOT_THING('b','QD';'\e_bas \tSBAS/QD \hwin1_basic_help_ \dwin1_basic_')
```

The following two hotkeys will execute Config or MenuConfig. I don't use Config very much nowadays, as MenuConfig is much better, that's why I put MenuConfig on lower-case c and Config on upper-case C (it's easier to ALT-lower-case c).

```
730 ERT HOT_LOAD1('C','Config')
740 ERT HOT_LOAD1('c','MenuConfig'!"Menu Config")
```

The next two keys will execute a fresh QD with the pre-defined settings (set by MenuConfig) and wake QD's which are already executing. Wake is the same as Pick, but it will refresh the contents of the picked job. In the case of QD, it brings the pointer back to the position at where it was before it was covered (note that PICK sets the pointer into the middle of the window!). If you are not sure about PICK and WAKE, set up two HOTKEYs and see if there's any difference.

```
750 ERT HOT_THING('D','QD')
760 ERT HOT_WAKE ('d','QD')
```

This brings up exactly one copy of the QPAC2-EXEC menu and updates it automatically.

```
770 ERT HOT_WAKE ('e','EXEC')
```

The following hotkey creates a new files-listing-window (again, from QPAC2). It does not pick or update. If I wish to pick, I use the lower-case f. There are good reasons why I don't WAKE this menu, because it would re-read the files list every time on a WAKE. If "tree" is enabled and sort is on, it can take up to a minute. Also, a WAKE gets rid of the display of deleted files, another unwanted feature here.

```
780 ERT HOT_THING('F','FILES')
790 ERT HOT_PICK ('f','FILES')
```

The next four hotkeys are easily explained. They always give me exactly one menu of hotkeys, channels, jobs and "remove jobs" (all from QPAC2).

```
800 ERT HOT_WAKE ('H','HOTKEYS')
810 ERT HOT_WAKE ('h','CHANNELS')
820 ERT HOT_WAKE ('j','JOBS')
830 ERT HOT_WAKE ('J','RJOB')
```

I need to look up some assembler keys fairly often. The following hotkey will open a window with all the keys-files, sorted by name. The "View" item is on, so that I just have to click on a file to view it. My configured sort order is "reverse time", so that the most recent files are at the top of the window.

```
840 ERT HOT_WAKE ('k','FILES';'\ov\dwin1_keys\sn'!'View')
```

The next two hotkeys are useful in text87. All I have to do is F3 - load and then press the hotkey, and it will insert the directory and press the cursor down for me, so that the file-selector box appears.

```
850 ERT HOT_KEY ('l','win1_t87_lett_'&CHR$(216))
860 ERT HOT_KEY ('L','win1_t87_ref_'&CHR$(216))
```

Another tricky one: I want exactly one copy of the following SBASIC program to run (it is renamed to "Master" in the first line of that program, that's why it should pick the job-name "Master").

```
870 ERT HOT_THING1('P','SBASIC';'LRUN win1_m_make_sav'!"Master")
```

By now you know that this will give me a "pick"-menu which allows me to select jobs to pick.

```
880 ERT HOT_WAKE ('p','PICK')
```

Hotkeys to execute QMAKEs. The first one executes fresh copies every time I press the key, the next one makes sure only one is running.

```
890 ERT HOT_LOAD ('Q','QMAKE')
901 ERT HOT_LOAD1('q','QMAKE')
```

The first of the following hotkeys executes a copy of Calculator every time I press the key. You may wonder how the Calculator, which is an executable file delivered in QPAC 1, is turned into a Thing. This is automatically done by the second hotkey definition: CHP1 loads the calculator into memory and turns it into a Thing. The repeated name is given only to have the name properly written, i.e. Upper-case followed by lower-case. Purely cosmetic.

```
910 ERT HOT_THING('R','CALCULATOR')
920 ERT HOT_CHP1 ('r','CALCULATOR','Calculator')
```

This will give me one copy of QPAC2's Sysdef menu.

```
930 ERT HOT_WAKE ('s','SYSDEF')
```

Sometimes it is useful to be able to create a fresh SBASIC. I know, typing in SBASIC in SuperBASIC does it. But why type if one keystroke does it? Or if SuperBASIC is busy, or crashed.

```
940 ERT HOT_THING('S','SBASIC')
```

The following hotkey pops up a dedicated copy of QD, which has to do with my Accounting (Verwaltung in German). The key after that will execute the SBASIC program which handles invoices etc.

```
950 ERT HOT_THING('V','QD';'\dwin1_verw_ \e_')
960 ERT HOT_THING1('v','SBASIC';'LRUN Verwaltung'!"Verwaltung")
```

Two more hotkeys for text87, functionality as explained above.

```
970 ERT HOT_KEY ('w','win1_t87_ger_'&CHR$(216))
980 ERT HOT_KEY ('W','win1_t87_eng_'&CHR$(216))
```

A key which will pick JMONs (if they are executing). It will not generate JMON (impossible, as this has to be done from the command line anyway).

```
990 ERT HOT_PICK ('x','JMON')
```

I have two different versions of XCHANGE - one which will look better in monochrome, one (from Erling Jacobsen) for the colour modes. I load XCHANGE into memory only when I need it (not too often, nowadays -text87 is what I prefer for wordprocessing and QSpread for Spreadsheets).

```
1000 IF RMODE=2:ERT HOT_LOAD1('X','XCHANGE_MONO';'250'):ELSE ERT HOT_LOAD1 ('X',
'XCHANGE';'250')
```

I also have different versions of text87. Monochrome and colour, and two differently configured colour versions: one for A5 manuals, one for A4 manuals. The appropriate key gives me the right text87 instantly, but makes sure only one copy of each is running.

```
1010 IF RMODE=2:ERT HOT_LOAD1('Y','win1_t87_mono_text87plus4'! 'Text87'):ELSE ERT
HOT_LOAD1('Y','win1_t87_Text87/A4'!'Text87/A4')
1020 IF RMODE=2:ERT HOT_LOAD1('y','win1_t87_mono_text87plus4'! 'Text87'):ELSE ERT
HOT_LOAD1('y','win1_t87_Text87/A5'!'Text87/A5')
```

Another dedicated files menu which will execute a file from the exec-subdirectory with one keyclick.

```
1030 ERT HOT_WAKE ('1','FILES';'\me\dwin1_exec_\sn'!'Execute')
```
The following program is something which I wrote for me to use under QBOX. I don't execute it very often through a hotkey keypress, but I define it so that I can execute later on easily.
```
1040 ERT HOT_THING1('6','SBASIC';'LRUN win1_qbox_sys_DISPWATCH_bas'! 'Dispwatch')
```
QLTERM is used by QBOX and PBOX for chats etc., so there is need to pick it!
```
1050 ERT HOT_PICK ('7','QLTERM')
```
More QBOX stuff, as you can see in the file name.
```
1060 ERT HOT_LOAD1('8','win1_qbox_sys_QBOX'!'Qbox')
1070 ERT HOT_LOAD1('9','win1_qbox_sys_LOOKMAIL';'win1_qbox_sys_')
1080 :
```
Get the HOTKEY job going and start the midinet server.
```
1090 HOT_GO:MIDINET
```
Again, I have two differently configured Sysmons for the different resolutions.
```
1100 IF mach=3:EX SYSMON_TT:ELSE EX sysmon
```
Oliver Fink's background is something which I quite like, so this has to be executed next. Then I set up various buttons for the most often used programs. Some have two parameters, the "real" name and the abbreviated name which has to appear in the button, so that the screen is not filled with too many rows of buttons (I find too many buttons worse than no buttons).
```
1110 EX background:EX 'CLOCK':EX 'SYSTAT'
1120 BT_WAKE 'Hotkeys','Hotkey': BT_SLEEP 'Channels','Chan': BT_SLEEP 'Pick': BT_SLEEP
'Exec': BT_SLEEP 'Jobs': BT_SLEEP 'Rjob': BT_SLEEP 'Things','Thg': BT_SLEEP 'Sysdef',
'Sys': BT_EXEC 'Files','File'
1130 EX 'NOTEPAD'
1140 :
```
DATA_USE points to the root of WIN1_ now, PROG_USE to the start of a chained device definition. Detailed explanation later on.
```
1150 DATA_USE win1_:PROG_USE dev1_
```
This picks SuperBASIC to the top and clears the command channel (creation of buttons may move the pointer!). In case it is not the highest resolution (machine 3) the windows are re-defined. I don't think it is necessary in SMSQ/E, but it is a leftover from QDOS where MODE trashed the window contents.
```
1160 HOT_DO '<':CLS#0
1170 IF mach<3:WSET -1
```
This actually defines the mouse hotkey (both mouse buttons pressed at the same time) to the hotkey which picks all buttons.
```
1180 MS_HOT CHR$(255)&'#'
```
More Hardware settings for the serial ports. If it is not a Stacy SER2 is defined as well.
```
1190 SPL_USE par:SER_FLOW H:SER_CDEOF 10:BAUD 1,19200:IF mach:BAUD 2,19200: SER_FLOW 2,H
```
Screen dumps go to the serial port (EPSON dot matrix or EPSON Stylus Color II, depending on the machine). SDUMP is set to Epson 24pin printer, scale 1, not inverted.
```
1200 SDP_DEV serdf:SDP_SET 6,1,0
```
Various QLiberator settings.
```
1210 QLIB_USE dev1_,win1_,0,0,'0011011000'
```
Here comes the device chain. PROG_USE is set to DEV1_, so that every EX command will start looking at DEV1_ to see if the program exists here (i.e. win1_exec_), and if it has not found it, it will go to DEV2_ (win1_basic_), then on to DEV3_ and so on until it comes to DEV6_, which brings it back to DEV1_ where it ends. DEV7_ and DEV8_ are used for different purposes. DEV7_ points to the harddisk on a network machine, which is useful to make sure the device name is only 5 characters long instead of 8. DEV8_ points to my "Master" directory.
```
1220 DEV_USE 1,win1_exec_,2
1230 DEV_USE 2,win1_basic_,3
1240 DEV_USE 3,win1_fax_,4
1250 DEV_USE 4,win1_qbox_sys_,5
```

```
1260 DEV_USE 5,win1_pbox_exe_,6
1270 DEV_USE 6,win1_,1
1280 DEV_USE 7,n1_win1_
1290 DEV_USE 8,win1_m_
1292 :
1295 SELect ON mach
```

Nearly at the end, some machine-dependent bits again. My main TT is used for assembly, therefore I load the assembler and linker as resident programs (things) - this speeds up assembly. Finally, I outline the windows and shift them to a good position. My 17" monitor has power-save features which reduces the power consumption if the screen goes black, so I blank it after 15 minutes of doing nothing.

```
1 312  =3:
1350   TH_LOAD win1_exec_QMac,"QMac"
1360   TH_LOAD win1_exec_Linker,"Linker"
1370   OUTLN:WMON ,512,240 1380  EX blank;' 15'
```

The following case deals with the mailbox machines. It redefines the SuperBASIC windows and does a lot of QBOX stuff, then finally LRUNs the PBOX_BOOT.

```
1435  =1,2:
1440   x=0: y=SCR_YLIM-256: OUTLN#0,510,256,x,y: WINDOW#0,510,42,x,y+214: WINDOW#1,256,
215,x+254,y: WINDOW #2,256,215,x,y: FOR ch=0 TO 2: BORDER#ch,1,4: CLS#ch
1450   DATA_USE win1_qbox_sys_
1460   EW LOOKMAIL;DATAD$
1470   EW WATCHDOG:EW TOSSMAIL
1480   SER_BUFF 2048,2048:HOT_DO '8':PAUSE 50:HOT_DO '6':PAUSE 100
1490   BT_HOTKEY '?'
1495   LRUN pbox_boot
1500 END SELect
1510 :
```

Pick BASIC so that command entry is ready.

```
1520 HOT_DO '<'
```

Do you think this is too difficult? This BOOT file grew during 7 years of harddisk usage - I had a much more primitive BOOT as long as I had to use floppy disks only. Don't expect to have a proper BOOT file ready in a few hours. Your BOOT is something which grows and "lives". You will find that this or that is missing, and you will find that some of the hotkeys you created are completely unnecessary, 'cause you never use them. Just experiment with your BOOT file and you will see that your machine can be much more handier than it was. ■

Small ads

As **QL *Today*** will become one of the most important sources for QL news, nearly all QL dealers advertise in here. This brought up the question why only QL dealers should be allowed, why not QL users who would like to buy and/or sell their programs, hardware, developments - whatever they think might interest other QL users. In the beginning, people could have marketed their software via clubs, like the German User Club. Why not make it possible for them to do it themself? There will be no difference in price between private ads and commercial ads: up to 50 words cost DM 5,- (or 3 IRC's), up to 100 words DM 10,- (or 6 IRC's).

QL Shows

The following QL meetings are planned and confirmed (all Saturdays):

June, 1st - Eindhoven, St. Joris College.
The show starts at 10^{00} and ends at 17^{00} (as usual). JMS will not be able to make it this time, unfortunately. Contact Sjef van de Molengraff (NL).

June, 22nd - London, St. Helens Church Hall, St. Quintins Ave, London W10 - nearest tube station is Ladbroke Grove. Contact Tony Firshman.

September, 7th - Eindhoven, St. Joris College.
Time as above. JMS will be there.

Bugs 'n Fixes

This area is intended to deal with bugs, whether they are "real" bugs or just user errors. Here's the place to report them, give the programmers a chance to deal with the problem, either by fixing it or by explaining what the user did wrong. Any problems? Just write to us!

UPDATES from PROGS

After an article in Quanta (by Peter Tyler), it seems that there is a bug in the PFfontmap file on the LINEdesign v2.06 demo distrbution. Line 25 now reads :

```
S flp1_;flp2_
```

This should be replaced by

```
S flp1_pf_fnt_;flp2_pf_fnt_
```

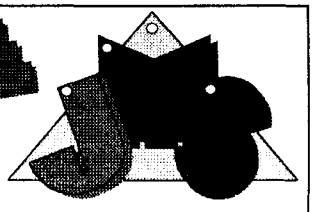
this should be corrected if you want to be able to use the fonts.

This only goes to show that everybody should always try to report problems when they are encountered. It is always best to try to fix it first, but let the producers or distributors of the package know what is going wrong. It is a bit silly that lots of people have to try to solve the same problems time after time. Therefore, we urge everybody to always report all problems and glitches that are encountered (including typing errors etc). The QL community is already quite small, everybody tries to build good working products, but we are onnly human and occassionally make a mistake. If we don't know about it, we can't fix it !

UPDATES on QD

Q quick report on the bug fixes since V8.09 (we're currently at V8.15). Search does not set the text change flag. The HELP_INDEX file is not left open anymore if you asked for help. Replace "Take word" did some funny things to the replace text, which are fixed. CTRL Z now highlights lines longer than the current screen width, and it does not add trailing spaces in that line. QD carries on replacing strings while buried (previously, it paused or always picked the pointer). The cursor position is left where it was before "Remove Controlcodes". One of the very rare cases where QD could crash was "Block upper/lowercase" - this is fixed. Deleted lines don't appear at the bottom after save anymore (happened very rarely).

JOCHEN MERZ SOFTWARE



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I am coming to the Boston QL Show and I will bring a machine (as I usually do) so that updates of my software during the show are possible. If you're looking for updates, please don't forget to bring your master disks! If you want to buy software please let me know beforehand so that I can make a better guess of what to bring - there's not too much baggage allowed on the planes. Let's turn it into a very successful meeting, see you soon!

The JMS Box 2 might be online now! Try it: 0203-502014! You will notice whether it is working or not, if it answers, it's there! The well-known JMS Box 1 will stay active, so if the new one does not answer, you can still use the well-known 0203-502013!

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SMSQ/E V2.74

SMSQ/E updates are free, just send master disk(s) & return postage or use the free mailbox update service! Albin Hessler gave his kind permission to bundle SER Mouse with every **SMSQ/E** for the GoldCard and SuperGoldCard. This applies to free updates too. The manual is now Revision 5 - including the SER Mouse documentation and all the changes so far. A new manual costs **DM 16,-**.

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UPDATES

Updates of our software are usually free. The exception: major changes on a program (a new Version number before the '.'). Always send the master disk(s) to us, together with **4** international reply coupons for up to 5 discs or **8** IRC's for more. If you send updates together with a software order, then the return postage is covered by the wholesale postage. If a disk is faulty, add **1** IRC for a replacement. As the software changes from time to time, you may order a new manual together with the disc update. With upgrades, you automatically get a new manual.

EPSON Stylus Color II

Duisburg, Germany - Jochen Merz

A number of people approached me and asked whether I could provide information on the new control codes of the EPSON Stylus Color II, IIs and 820. They said they could not find a description of the codes anywhere.

Here is a list of instructions which are NOT available in older ESC/P2 printer models and which might not be listed in older copies of the ESC/P2 Reference Manual, available directly from EPSON (very comprehensive, it deals with all dot-matrix and inkjet printers EPSON ever made). Some of the codes might be available in the Stylus Color, but I can't promise.

Assign character table

ESC (t 3 0 d1 d2 d3 *1B 28 74 03 00 d1 d2 d3*

The table selected by d2 and d3 will be assigned to the parameter d1.
d1 should be in the range 0 to 3 or 48 to 51. The following table lists the values possible for d2 and d3:

d2	d3	Character set	
0	0	Italics	
1	0	PC 437	USA, Standard
3	0	PC 850	Multilingual
7	0	PC 860	Portugese
8	0	PC 863	Franco-Canadian
9	0	PC 865	Nordic
24	0	PC 861	Iceland
25	0	BRASCII	Brasilian
26	0	ABICOMP	most accented characters

Defaults:

(d1=0)	Table 0	Italics
(d1=1)	Table 1	PC 437
(d1=2)	Table 2	User-defined
(d1=3)	Table 3	PC 437

ESC @ (printer reset) resets table 2 and 3, but leaves 0 and 1 as they are.

Select character table

ESC t d1 *1B 74 d1*

Select a character table assigned by ESC (t.

d1=0 or 48	Character set 0
d1=1 or 49	Character set 1
d1=2 or 50	Character set 2
d1=3 or 51	Character set 3

Defaults:

(d1=0)	Table 0	Italics
(d1=1)	Table 1	PC 437
(d1=2)	Table 2	User-defined
(d1=3)	Table 3	PC 437

Select print colour

ESC r n *1B 72 n*

Select the printing colour.

n=0	Black
n=1	Magenta
n=2	Cyan
n=3	Purple
n=4	Yellow
n=5	Red
n=6	Green

Activate Bit-Image Printing

*ESC * m n1 n2* *1B 2A m n1 n2 + (n1+n2*256)*t data bytes*

In addition to the parameters for m which work on every EPSON ESC/P2 printer (0, 1, 2, 3, 4, 6, 32, 33, 38, 39 and 40) the following three resolutions are possible now:

m	horizontal res.	vertical res.	dots	print neighbour dots	t
71	180	360	48	yes	6
72	360	360	48	no	6
73	360	360	48	yes	6

Select MicroWeave mode

ESC (i n *1B 28 69 n*

This escape sequence turns the microweave mode on or off.

n=0 (off), 1 (on)

Select TIFF-Compression

ESC . 2 v h 1 0 0 *1B 2E 02 v h 01 00 00*

Select TIFF 4.0 compression method and select the horizontal (h) and vertical (v) dpi in n/3600 inch.

v=0, 5, 10, 20

h=0, 5, 10, 20

v and h=0 does not change resolution.

Select Delta-Row Compression

ESC . 3 v h 1 0 0 *1B 2E 03 v h 01 00 00*

Select Delta-Row compression method and select the horizontal (h) and vertical (v) dpi in n/3600 inch.

v=0, 5, 10, 20

h=0, 5, 10, 20

v and h=0 does not change resolution.

Print Raster Graphics

ESC . c v h m n1 n2 data *1B 2E c v h m n1 n2 d1....dk*

This complex commad works as described in the ESC/P2 manual, but some additional parameters are possible now:

c=0 (Graphic-Mode) or 1 (compressed Mode)

v=5, 10, 20, 40 (vertical dot resolution in 3600/v dpi)

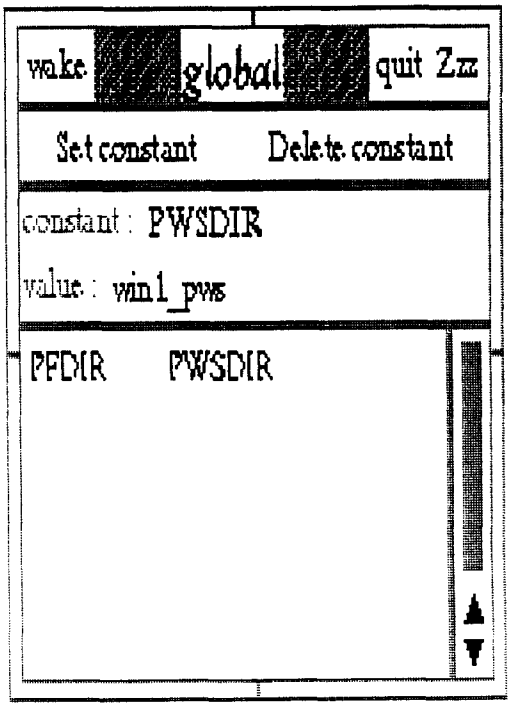
h=5, 10, 20 (horizontal dot resolution in 3600/h dpi)

m=1, 8, 24 (normal print), 15 (MicroWeave)

A worked example of a small ProWesS application

Veltem, Belgium - PROGS

This is a smallish program which allows you to investigate the value of all the "Global Variables" which have been defined, and to change, add or delete global variables.
"Global Variables" are an operating system extension which is introduced in ProWesS. It is a system which is similar to (but not the same as) environment variables on Unix systems. It allows you to assign a value (a string) to a name. This value can be queried by everybody and can also be changed by anybody. It is mainly used to ease the installation process for programs. It is for example used when loading ProWesS. The device and directory where ProWesS is loaded from is stored in a global variable (PWSDIR). This value of variable is then used to find files.
The libraries (syslib) support the use of global variables when a file is opened. For example, when a file if opened with the name "$PWDIR_doc_loader_html", then the "$PWDIR" is automatically replaced by its value (e.g. "win1_pws").
This program is also a very good example for the ease with which interactions between several parts of the window can be programmed.



The window contains a few items. The two items labeled "constant" and "value", contains the name and value of a constants. These items can be edited at wish. When the name of a "Global Variable" is indicated in the menu at the bottom of the window, then that name and the current value will be displayed in the items just above the menu. A "Global Variable" can be (re)set by indicating the "Set constant" item, or deleted by indicating "Delete constant".

The source code

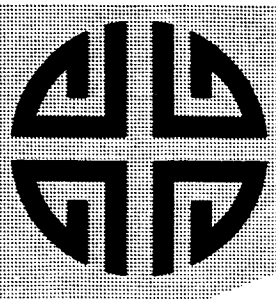
Here is a run through of the source code. Obviously, it starts by including the header files, and some constants which are used to access the "Global Variables" thing. Also a special macro is defined which helps to catch errors when they occur (hence the name).

```
#include "str.h"
#include "thing.h"
#include "ProWesS.h"

#define catch(x) if (err=(x)) return err; else

#define GLOBAL_NAME "Global Variables"
#define GLOBAL_GET  0x47455420  /* "GET " */
#define GLOBAL_SET  0x53455420  /* "SET " */
#define GLOBAL_DELE 0x44454c45  /* "DELE" */
#define GLOBAL_FRST 0x46525354  /* "FRST" */
#define GLOBAL_NEXT 0x4e455854  /* "NEXT" */
```

The text which is displayed inside the items and as labels is defined separately. This makes it easier to change them (for example to produce a copy of the program in a different language). In fact, they could just as well be made configurable.



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The ProWesS reader is a major part of the package. It is a hypertext document browser. This means that text files which include formatting commands and possibly links to other files can be displayed and read in this program. This is used in ProWesS to read (and possibly print) the manuals, and display the help files. The hypertext documents which are used by the ProWesS reader are in HTML format, the format which is popular on Internet to display World Wide Web pages.

All registered ProWesS users will get a free update to ProWesS when the full version is available. The package currently contains (apart from the libraries) the ProWesS reader, which allows you to browse hypertext documents (in HTML format), the ProWesS loader, which allows loading applications, including all the required extensions without reset, and some small sample applications (like a calculator). Many more utilities and installation software will be sent to you as the free upgrade to the full version !

ProWesS does not include the programming documentation. This is available via bulletin board and public domain software suppliers. The programming documentation is readable in the ProWesS reader, and partly in DATAdesign (the demo version is be included).

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```
#define LabelConstant   "constant : "
#define LabelValue      "value : "
#define ItemSet         "Set constant"
#define ItemDelete      "Delete constant"
```

The maximum length of the strings which can be edited (the name and value of the constant) are defined here. These lengths are not limited by the "Global Variables" thing, but limiting them makes them easier to handle. In fact, the "edline" object (which allows you to edit a string) always works with a fixed length string. This length can be defined when the object is created. Otherwise a default length is used (this default length is configurable).

```
#define MAX_NAME    64
#define MAX_VALUE   256
```

Because we think it useful to make programs re-entrant, you should not use global variables, as their value will be shared between all the copies of the program (especially when the program is loaded as an executable thing). Therefore a global structure is needed which is used to pass the parameters so that they are accessible in all the functions. The base of this structure can be stored in the ProWesS system.

```
typedef struct {
     PWObject menu;
     PWObject constant, value;
} Global;

/* forward declarations */
Error readall(PWObject object);
Error set(PWObject object);
Error delete(PWObject object);
Error select(PWObject object, char *item);
```

The program starts by creating the outline for the window. This outline includes the title (which is the default, the program name), a wake, quit and a sleep item. The quit item is also activated when <esc> is pressed. The action which has to be called for the wake action is defined (re-read which global variables are defined). To allow the event handlers to find the globally used variables, the "Global" structure is stored in the global auxiliary.

```
Error init()
{
    Global g;
    Error err;
    PWObject win, box;

    catch( PWCreate(NULL, &win, PW_TYPE_OUTLINE,
                PW_OUTLINE_SLEEP,
                PW_OUTLINE_QUIT,
                PW_OUTLINE_QUIT_KEYPRESS, 27,
                PW_OUTLINE_ACTION_WAKE, readall,
                PW_GLOBAL_AUXILIARY, &g,
                NULL) );
```

Inside the outline, there are many items. The items are normally all below each other at the first level of nesting inside the outline, so a box is created to change the direction as I want the items to be side by side. Inside this box, there are the two loose items to set and delete a constant. The event handlers which have to be called when the items are indicated are defined. It is also specified that the status of the items should not be changed when they are indicated.

```
catch( PWCreate(win, &box, PW_TYPE_DIRECTION, NULL) );
catch( PWCreate(box, NULL, PW_TYPE_LOOSE_ITEM,
            PW_LOOSE_TEXT, ItemSet,
            PW_LOOSE_CHANGE_STATUS, FALSE,
            PW_LOOSE_ACTION_HIT, set,
            NULL) );
catch( PWCreate(box, NULL, PW_TYPE_LOOSE_ITEM,
            PW_LOOSE_TEXT, ItemDelete,
            PW_LOOSE_CHANGE_STATUS, FALSE,
            PW_LOOSE_ACTION_HIT, delete,
            NULL) );
```

Below these items, there are the two objects to edit the strings with the name and value of the constant. The maximum length of these strings is given. Then the two edline objects are connected with each other to make sure that the user can move the cursor between the two items. This is done using the up and down keys. Also after editing the string in the first edline, the user can automatically modify the value for that constant.

```
catch( PWCreate(win, NULL, PW_TYPE_SEPARATOR, NULL) );
catch( PWCreate(win, &g.constant, PW_TYPE_EDLINE,
            PW_EDLINE_MAXLENGTH, MAX_NAME,
            NULL) );
catch( PWCreate(win, &g.value, PW_TYPE_EDLINE,
            PW_EDLINE_MAXLENGTH, MAX_VALUE,
            NULL) );
catch( PWChange(g.constant,
            PW_EDLINE_EDLINE_AFTER, g.value,
            PW_EDLINE_EDLINE_DOWN, g.value,
            NULL) );
catch( PWChange(g.value,
            PW_EDLINE_EDLINE_UP, g.constant,
            NULL) );
```

Of course, we also need a menu which will contain all the constants which are defined at a given moment. This menu is separated from the rest of the window with a separator line. At least six lines are always visible in the menu. All the items inside the menu are always sorted, using a case independant compare (compare routine is given). The event handler which has to handle the selection of an item is specified, but no item can appear to be selected.

```
catch( PWCreate(win, NULL, PW_TYPE_SEPARATOR, NULL) );
catch( PWCreate(win, &g.menu, PW_TYPE_MENU,
            PW_MENU_VISIBLE_LINES, 6,
            PW_MENU_SORT_COMPARE, STRCompareCI,
            PW_MENU_ACTION_SELECT, select,
            PW_MENU_NONE_SELECTED,
            NULL) );
```

The edline objects which were defined a bit higher are not yet labeled. Therefore, the labels are added to the left of the items. To make sure the edlines are as large as possible when the window is scaled, we make sure that the label itself is not scaled.
The labels are added here because otherwise the default ordering of the objects in the window could no longer be used. The alternative solution for this is used when defining the loose items above. These are also positioned side by side, but because they are positioned inside a direction box, the default positioning rule is not hampered (as this is defined to be a structuring object).

```
    catch( PWCreate(win, NULL, PW_TYPE_LABEL,
                PW_POSITION_LEFT_OF, g.constant,
                PW_LABEL_TEXT, LabelConstant,
                PW_SCALE_FACTOR, 0,
                NULL) );
    catch( PWCreate(win, NULL, PW_TYPE_LABEL,
                PW_POSITION_LEFT_OF, g.value,
                PW_LABEL_TEXT, LabelValue,
                PW_SCALE_FACTOR, 0,
                NULL) );
```

Before we can start, we have to fill the menu with all the constants which are defined at the moment. So we call the event handler which will also handle the wake event. Then the window is activated.

```
    readall(win);

    return PWActivate(win);
}
```

To read all the definition constants, an iterator which loops over all the "Global Variables" has to be used. To start we have to extract the global structure from the ProWesS system (the global auxiliary). The menu is then cleared to remove the old contents. A little loop is then started which iterates over all the constants which are defined. The "Global Variables" system is accessed using the thing system. Each constant of which the name is thus obtained, is then adde in the menu. The menu object will automatically make sure that its contents remains sorted.

```
Error readall(PWObject object)
{
    Error err;
    Global *g;
    char *name, *value;

    PWQuery(object,PW_GLOBAL_AUXILIARY,&g);

    PWChange(g->menu,PW_MENU_CLEAR,NULL);

    err=THINGCall(GLOBAL_NAME,GLOBAL_FRST,2,&name,&value);
    while (!err)
    {
        catch( PWChange(g->menu, PW_MENU_ADD_COPY, name, NULL) );
        err=THINGCall(GLOBAL_NAME,GLOBAL_NEXT,2,&name,&value);
    }
    return ERR_OK;
}
```

When a constant in the menu is indicated, the name and value of that constant have to be displayed in the edline objects. So to start, we have to retrieve the object identifiers for the edline objects. These are stored in the "Global" structure which is referenced in the global auxiliary for the window. The value for the constant then has to be queried by calling the "Global Variables" thing. The strings with the name and value of the constant then have to be passed to the edline objects.

```
Error select(PWObject object, char *item)
{
    Error err;
    Global *g;
```

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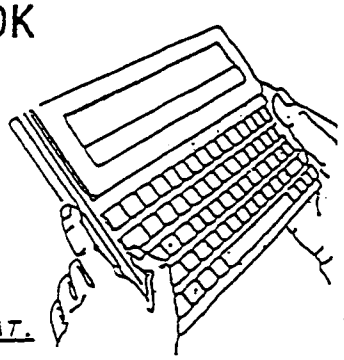

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```
    char *value;

    PWQuery(object,PW_GLOBAL_AUXILIARY,&g);

    err=THINGCall(GLOBAL_NAME,GLOBAL_GET,2,item,&value);
    if (err) item=value="";
    PWChange(g->constant, PW_EDLINE_SET, item, NULL);
    PWChange(g->value, PW_EDLINE_SET, value, NULL);
    return ERR_OK;
}
```

Setting a "Global Variable" is approximately the reverse of the select routine above. After querying the global auxiliary, the strings which are stored in the edline objects have to be obtained. Then a "Global Variable" is defined with the given name and value. To make sure that the menu stays synchronized with the existing variables, the contents of the menu is rebuilt.

```
Error set(PWObject object)
{
    Error err;
    Global *g;
    char name[MAX_NAME], value[MAX_VALUE];

    PWQuery(object,PW_GLOBAL_AUXILIARY,&g);

    PWChange(g->constant,PW_EDLINE_GET,MAX_NAME,name,NULL);
    PWChange(g->value,PW_EDLINE_GET,MAX_VALUE,value,NULL);

    THINGCall(GLOBAL_NAME,GLOBAL_SET,2,name,value);
    return readall(object);
}
```

Deleting a constants is also quite similar with setting one. In this case, the value for the name is irrelevant, but it is adviseable that the edlines are cleared after the constant was deleted. Again, the menu is also rebuilt to stay up to date.

```
Error delete(PWObject object)
{
    Error err;
    Global *g;
    char name[MAX_NAME];

    PWQuery(object,PW_GLOBAL_AUXILIARY,&g);

    PWChange(g->constant,PW_EDLINE_GET,MAX_NAME,name,NULL);

    THINGCall(GLOBAL_NAME,GLOBAL_DELE,1,name);

    PWChange(g->constant, PW_EDLINE_SET, "", NULL);
    PWChange(g->value, PW_EDLINE_SET, "", NULL);
    return readall(object);
}
```

Makefile

The makefile for this program is quite straightforward. In fact, most of the makefile is standard, as it originates from a simple template makefile. The most import lines are the line which starts with "OBJ =".

The parameter is a list of all the object files for the application. In this case, the entire program is in one file. Another important line starts with "all :". This lists all the targets in this directory which have to be created. All dependencies are automatically checked and everything is rebuilt when necessary.
The line starting with "global" lists first the dependencies, and then the programs which have to be called to build the file. This starts by calling the linker, with all the object files. The output file (-o) is called "global", and the map and symbol table are produced (-ms). All the necessary libraries are included (-lpw -lpf -lsms). Because the program which is built will be an executable, the proper startup file has to be used. This is done with the -sexec parameter.
After the linking stage, some post processing has to be done to make the dataspace of the output file correct and add the program name. This is done with the "mkexec" program which has the file and the program name as parameters. Optionally, an extra parameter with the requested extra amount of dataspace can be passed (the default is 4kB). The program name is enclosed in quotes (a quote has to be preceded by a backslash or the "make" program will discard it). The yen symbol is used to separate the actual program name from an extra comment which will be part of the file.

```
# makefile for ProWesS application software
# possible flags - none define just yet
DEFINES =
# specify compiler etc
CC = cc
CFLAGS = -c -O
LD = ld
MAC = qmac

OBJ = global_o

all : global

global : ${OBJ}
        ${LD} -ms -oglobal \
        ${OBJ} \
        -lpw -lpf -lsms -sexec
        mkexec global \"globalß v1.00, manipulate \"\"Global Variables\"\", from
PROGS, Belgium\"

_c_o : ; ${CC} ${CFLAGS} ${DEFINES} $<
_s_o : ; ${CC} -c $<
_asm_rel : ; ${MAC} $<
```

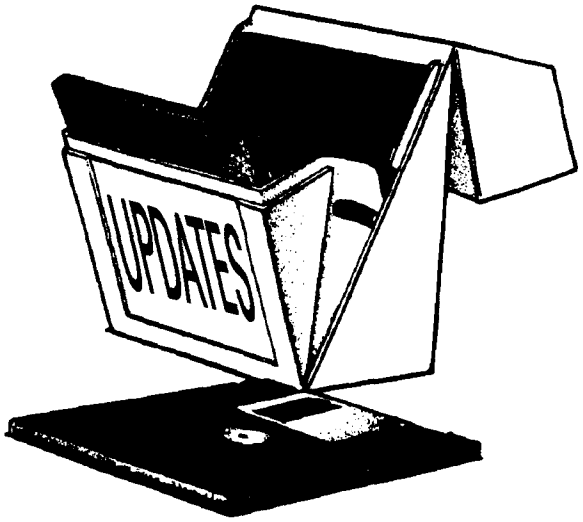
NEWS Ticker ...

PROGS

It seems that there has been some confusion about the mechanisms for dynamic linking of libraries, specifically RLL versus DLL. So, to clear things up, it has to be said that both DLL and RLL libraries can be combined in one program. As this implies, there is no problem with using c68 libraries in applications which also use syslib, PROforma and/or ProWesS.

PROGS in JMS-Box

Jochen Merz has created some special ProWesS file areas and a ProWesS discussion area on his bulletin board JMS-Box 2 (+49 203 502014). The discussion area (20) can be used for questions about using and/or programming for ProWesS and other ProWesS related queries. There are two ProWesS file areas, a public area(61), which contains the ProWesS programming documentation (always the most recent version, as this is the primary distribution method), and example code and possibly other ProWesS related stuff. The second ProWesS file area (60) is only accessible by registered ProWesS users, as updates to the most recent version is available here.



QUBIDE

The current version of the QUBIDE EPROM is V1.39, the partition program is V0.09.

There now follows a list of known AT/IDE Hard Drives that work with QUBIDE as of 20th May 1995. If you are successfully using a drive with QUBIDE, that is not on the list, would you please send details of Make, Model Number, Capacity and if possible Cylinders, Heads and Sectors per Track so that we can add it to the list.

Make	Model No.	Capacity
Conner	CFS420A	425mb
Conner	CFS425A	425mb
Conner	CP30254	240mb
Conner	CFS210A	210mb
Conner	CP3204F	200mb
Conner	CP30174E	170mb
Conner	CP30104	120mb
Conner	CP3104	100mb
Conner	CP30084E	85mb
Conner (2.5in)	CP2088	85mb
Conner (2.5in)	CP2061	63mb
Conner (2.5in)	CP2044	42mb
Conner	CP344	40mb
Conner	CP3000	40mb
Conner	CP3044	40mb
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Western Digital	AC2850	850mb
Western Digital	AC2420	425mb
Western Digital	AC1210	212mb
Western Digital	AP4200	212mb
Western Digital	WD93044-A	41mb
Quantum	ELS127A	127mb
Quantum	ELS170A	170mb
Quantum	LP120S	120mb
Quantum	LP52A	51.5mb
Quantum	LP40A	40mb
Samsung	SHD30560A	560mb
Samsung	SHD30420A	420mb
Samsung	SHD3062A	120mb
Samsung	SHD3101A	105mb
Seagate	ST3660A	540mb
Seagate	ST3491A-XR	428mb
Seagate	ST3290A	260mb
Seagate (2.5in)	ST9150AG	125mb
Seagate	ST3145A	122mb
Seagate	ST3120A	102mb
Seagate	ST351A/X	42mb
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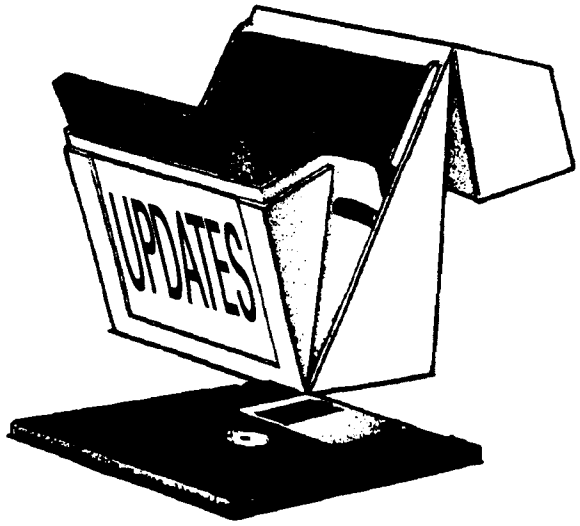
Maxtor	7540AV	540mb
Maxtor	7170AT	170mb
Maxtor	7120AT	120mb
IBM	WDA-L42	42mb
IBM	H3133-A2	133mb
IBM	H3171-A2	171mb
Fujitsu	M2616ET	104mb
SyQuest (Removable Medium)	EZDrive135	135mb

There are a few IDE Hard Drives that we know will not work with QUBIDE, these Drives are as follows:

Quantum	Pro52AT	52mb
Quantum	Pro40AT	40mb
Miniscribe	All Models	
Seagate	ST157A	42mb

JMS Software

You will find all the current version numbers in the JMS-ad in this issue, which is really up-to-date.



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"From The Nurse Helping To Keep The QL Alive!"

08/05/96

Use the Button Frame in BASIC

Duisburg, Germany - Jochen Merz

Phil Jones asked me some days ago that he would like to allocate a Button in QPAC 2's Button Frame to output information. As this is not possible with the Menu Extension I thought I should write a little extension which would allow you to do this. Here is the result. You can allocate a slot in the Button Frame and you can free it after you've used it. What you do with the button is up to you - you can use it to display information, or you can turn it into a "Pointer" button like the ones you know from other applications (or do what QMenu's BUTTON_WAIT does). The main problem is: the single call to allocate a slot has to return TWO parameters, the x-origin and the y-origin. I have chosen a simple approach which returns the coordiantes as a float variable: x*65536+y. It is quite easy to split it mathematically, but to make sure there are no rounding errors I convert it into an 8 character hex digit and split this - it is 100% accurate.
Oh, and one thing you should remember: the width of the button should always be a multiple of 4, and the height should be 14 to make it fit smoothly into the other buttons.

Here is the assembler source. There is no function to re-allocate, but you can either add it yourself easily or you free and re-use the Button Frame to accomodate a differently sized button.

```
; Use and free a button in QPAC 2's Button Frame for BASIC
; (C) 1996 Jochen Merz

        include win1_keys
        section sbext

        lea     proc_def,a1     ; procedures and function table
        move.w  sb.inipr,a2
        jmp     (a2)            ; initialise new procs and functions

proc_def
        dc.w    2               ; one long procedure name
        dc.w    btframe_free-*
        dc.b    12,'BTFRAME_FREE '
        dc.w    0               ; end of procedures
        dc.w    2               ; two long function names
        dc.w    btframe_use-*
        dc.b    11,'BTFRAME_USE'
        dc.w    0               ; end of functions

btframe_use
        move.w  sb.gtint,a2     ; get integer parameters
        jsr     (a2)
        tst.l   d0
        bne.s   bt_use_ret      ; error, return
        moveq   #err.ipar,d0    ; assume invalid parameters

        subq.w  #2,d3           ; there have to be two
        bne.s   bt_use_ret
        move.l  (a6,a1.l),d1    ; get width and height into D1
        addq.l  #4,a1           ; adjust stack
        bsr.s   ut_usnbt        ; try to allocate in button frame
        bne.s   bt_use_ret

        move.l  d1,-(sp)        ; store d1
        moveq   #6,d1           ; check for 6 bytes on ri stack
        move.w  qa.resri,a1
        jsr     (a1)
        move.l  (sp)+,d1        ; and restore d1
        move.l  bv_rip(a6),a1   ; get ri stack pointer

        subq.l  #6,a1           ; make room for float return parameter
        clr.w   (a6,a1.l)       ; put zero exponent on
        tst.l   d1
```

```
        beq.s   ret_fl_mant     ; ... and zero mantissa
        move.w  #$0820,d2       ; and set unnormalised exponent (+1)
ret_fl_norm
        subq.w  #1,d2           ; reduce exponent
        asl.l   #1,d1           ; and multiply mantissa by 2
        bvc.s   ret_fl_norm     ; if not overflowed yet, try again
        roxr.l  #1,d1           ; restore mantissa to non overflowed
        move.w  d2,(a6,a1.l)    ; put actual exponent on ri stack
ret_fl_mant
        move.l  d1,2(a6,a1.l)   ; and mantissa
        moveq   #2,d4           ; result is float
        move.l  a1,bv_rip(a6)
bt_use_ret
        rts

btframe_free
        bra.s   ut_frbtn        ; just do the utility routine

; Find position in Button Frame for current job.
;
;               Entry                           Exit
;       D1.l    width | height                  x origin | y origin
;
;       Error returns: <> 0 if Button frame or THING does not exist
ut_usnbt
btnu_reg reg    d2-d3/a0-a2
        movem.l btnu_reg,-(sp)
        moveq   #0,d3           ; signal 'new entry'
        bra.s   use_btn

; Re-allocate a position in Button Frame for current job.
;
;               Entry                           Exit
;       D1.l    width | height                  x origin | y origin
;
;       Error returns: err.itnf         Button frame does not exist
ut_usrbt
        movem.l btnu_reg,-(sp)
        moveq   #-1,d3          ; signal 're-allocate'
use_btn
        move.l  d1,d2
        moveq   #-1,d1          ; for current job
        lea     btnf_nam,a0     ; that's the Button Frame
        moveq   #sms.uthg,d0    ; use it
        bsr.s   gu_thjmp
        tst.l   d0
        beq.s   use_ok          ; failed, return default
use_err
        moveq   #-1,d2          ; no thing, return default position
use_ok
        move.l  d2,d1           ; that's the position!
        movem.l (sp)+,btnu_reg
        tst.l   d0
        rts

; Free entry in Button Frame.
;
; All registers including D0 are preserved.
ut_frbtn
btnf_reg reg    d0-d3/a0-a2
        movem.l btnf_reg,-(sp)
        moveq   #-1,d1          ; that's the current job
        lea     btnf_nam,a0     ; the Thing we'd like to free
        moveq   #sms.fthg,d0    ; free it
        bsr.s   gu_thjmp
        movem.l (sp)+,btnf_reg
        rts
btnf_nam
```

```
        dc.w    12
        dc.b    'Button Frame'

; Jump to Thing Utility through HOTKEY System II.
; Note this only works if a HOTKEY System version 2.03 or later is present.;
;               Entry                           Exit
;       d1      owner                           Job ID
;       d2      priority/timeout                preserved
;       a0      thing name                      preserved
;       a1      parameter string                preserved
;
;       Condition codes set
gu_thjmp
        move.l  a4,-(sp)
        move.l  d0,-(sp)
        moveq   #thh_entr,d0    ; thing vector required
        bsr.s   gu_thvec        ; get THING vector
        bne.s   gut_ex4         ; there's nothing to jump to!
        move.l  (sp)+,d0
        jsr     (a4)            ; do it
gut_exit
        move.l  (sp)+,a4
        tst.l   d0
        rts
gut_ex4
        addq.l  #4,sp           ; skip operation
        bra.s   gut_exit

; Find Thing utilitiy vector of HOTKEY System II.
; Note this only works if a HOTKEY System version 2.03 or later is present.
;
;               Entry                           Exit
;       d0      vector required                 error code
;       a4                                      Thing Utility Vector
;
;       Error returns:  err.nimp                THING does not exist
;       Condition codes set
gu_thvec
        movem.l d1-d3/a0,-(sp)
        move.w  d0,d3
        moveq   #sms.info,d0    ; get system variables
        trap    #do.smsq
        move.l  sys_thgl(a0),d1 ; this is the Thing list
        beq.s   thvec_nf        ; empty list, very bad!
        move.l  d1,a0
thvec_lp
        move.l  (a0),d1         ; get next list entry
        beq.s   th_found        ; end of list? Here should be THING!
        move.l  d1,a0           ; next link
        bra     thvec_lp
thvec_nf
        moveq   #err.nimp,d0    ; THING does not exist
        bra.s   thvec_rt
th_found
        move.l  th_thing(a0),a0 ; get start of Thing
        cmp.l   #-1,thh_type(a0); is it our special THING?
        bne.s   thvec_nf        ; sorry, it isn't
        move.l  (a0,d3.w),a4    ; this is the vector we look for
thvec_rt
        movem.l (sp)+,d1-d3/a0
        tst.l   d0
        rts

        end
```

If you do not know how to use an assembler, here a short SuperBASIC program (left column) which you can run, which will generate the extension BTFRAME_rext in RAM1_ (save it to FLP or WIN or so!!) which you can LRESPR, and which will then give you the new procedure and function.

```
100 DATA "43FA0008347801104ED2"
110 DATA "00020074OC4254465241"
120 DATA "4D455F46524545200000"
130 DATA "000200100B4254465241"
140 DATA "4D455F55534500003478"
150 DATA "01124E924A80664470F1"
160 DATA "5543663E223698005889"
170 DATA "613A66342F0172063278"
180 DATA "011A4E91221F226E0058"
190 DATA "5D89427698004A816710"
200 DATA "343C08205342E38168FA"
210 DATA "E2913D8298002D819802"
220 DATA "78022D4900584E75602A"
230 DATA "48E730E07600600648E7"
240 DATA "30E076FF240172FF41FA"
250 DATA "002A702861324A806702"
260 DATA "74FF22024CDF070C4A80"
270 DATA "4E7548E7F0E072FF41FA"
280 DATA "000C702961144CDF070F"
290 DATA "4E75000C427574746F6E"
300 DATA "204672616D652F0C2F00"
310 DATA "70086110660A201F4E94"
320 DATA "285F4A804E75588F60F6"
330 DATA "48E770803600700004E41"
340 DATA "222800B8670A20412210"
350 DATA "6708204160F870ED6012"
360 DATA "206800100CA8FFFFFFFF"
370 DATA "000466EE287030004CDF"
380 DATA "010E4A804E7500000000"
390 RESTORE:a=ALCHP(300):b=a
410 REPeat loop
420  IF EOF:EXIT loop
430  READ h$
440  FOR c=1 TO LEN(h$) STEP 2
450   POKE b,HEX(h$(c TO c+1)):b=b+1
465  END FOR c
470 END REPeat loop
480 SBYTES ram1_BTFRAME_rext,a,286
```

If you think this is still too difficult for you, then you can download it from my (and probably soon) from other mailboxes). The right column shows a little BASIC program which can be run in SBASIC (or compiled using QLiberator, for example) which will open a small button and wait for an input in there. This is not a very useful thing to do, but it demonstrates how it works.

```
100 REMark Before we can redefine #0 to
be the button we should close all other
open con's
110 CLOSE#1,#2
120 REMark That's the size we want
130 xsize=48:ysize=14
140 REMark Become a user of the button
frame
150 org$=HEX$(BTFRAME_USE(xsize,ysize)
,32)
160 REMark Split result into x and y
origin
170 xorg=HEX(org$(1 TO 4)):yorg=HEX(
org$(5 TO 8))
180 REMark Redefine #0 to be the button
190 WINDOW#0,xsize,ysize,xorg,yorg
200 BORDER#0,1,4:PAPER#0,7:CLS#0:INK
#0,0
210 BORDER#0,2
220 INPUT#0,'Hi!'!a$
230 REMark Unregister from the button
frame
240 BTFRAME_FREE
```

I hope you found one or the other useful information to try things out in this article. It is not a perfect way to do it, but it is safe, short and easy. ■

QL *Today* DEUTSCH

***English readers, please ignore about the following text. It is about a German add-on to* QL *Today*.**

Liebe deutschsprachige Leser, wir alle finden man sollte die Chance nutzen und IQLR auch für Euch interessanter machen. Da nicht abzusehen ist ob und wann ein neuer Quasar erscheint ist eine Alternative ohnehin notwendig. Außerdem brächte ein 2-monatiges Erscheinen von "QL *Today* Deutsch" mehr aktuelle Neuigkeiten an die Leser. Da QL *Today* ja in Deutschland gemacht wird entfallen die Kosten von Amerika nach Deutschland. Die Idee: der Preis bleibt gleich, doch zusätzlich zu dem normalen englischen QL *Today* gibt's noch einen deutschen Zusatz. Ob's was wird hängt natürlich von Euch ab, daher: Testberichte, Tricks und Tips, Neuigkeiten usw. sind herzlichst willkommen, in Deutsch und in Englisch. Bitte beachtet den jeweiligen Redaktionsschluß. Der schnellste Weg ist natürlich die Box, aber Disketten sind natürlich genauso willkommen. Also: haut in die Tasten, auf daß wir alle wieder etwas mehr Pepp in den QL und alles, was damit zu tun hat, bringen!

QUANTA WORKSHOP AND A.G.M., TYNEMOUTH, APRIL 1996

Bangor, Wales - Dilwyn Jones

This meeting was organised by the local Qanta North East (QuantaNE) sub group. It took place at the Grand Hotel on the seafront in Tynemouth on Saturday and Sunday 27-28th April. For those who have not been to one before, a Quanta workshop is a meeting where traders and QL users come together for a 1 or 2 day feast of QL related activity. Users can either just come along and meet other like-minded people, or get help to sort out their problems, or just attend to see demonstrations of a particular product they may have been considering buying. I have attended many of these gatherings over the last decade, both as a user and a former QL trader, and found them to be both an enjoyable social event and a great QL-related day out.

Having looked forward to this event for a while, I foolishly asked the PC at work to print me an AutoRoute list to get me there as quickly as possible. It said it would take me just over 4 hours from Wales to Tynemouth. I should have known better than to trust a PC. Just over 5 hours later, having got completely lost in Leeds (as did Robin Barker of Di-Ren who was also getting lost courtesy of AutoRoute as it turned out), I emerged from the Tyne Tunnel and duly made my way to the promenade at Tynemouth. I'm glad to say that the rest of the weekend went rather more smoothly.

Two rooms were provided at the hotel. The one behind reception was used as the traders' room. Here you could buy things, ask questions, meet the faces behind the companies, sort out problems, upgrade your software and so on. Most of the familiar names were there: Miracle Systems, Quo Vadis Design, Jochen Merz Software, Qubbesoft P/D, Di-Ren W.N.Richardson & Co and Geoff Wicks, who had come from The Netherlands to demonstrate and sell his words packages of Solvit, Thesaurus and Style Checker. Quanta also had a stand, of course. Notable by their absence (as they often do attend these meetings) were companies such as QBranch, Digital Precision and PROGS. The other room, down in the basement and sadly not too well sign-posted in the hotel by the organisers, was provided as a place for the talks and demonstrations and a place for users to set up their own machines and generally tinker and meet other QL users. The local sub-group and a sub-group from the Manchester area were there in force. The bring and buy area proved to be popular. This allowed visitors to sell their unwanted QL software and hardware, and to buy second user products at bargain prices. Books and magazines were also available.

No significant new products were launched at this workshop, but there were some announcements and lots of information on imminent new products.

TF Services sold their new SuperHermes keyboard, mouse and enhanced serial ports device, and also showed their new serial to parallel printer lead with all the electronics held within the hood of the printer connector. The unit on show was not a finished production model, but looked complete. It will be available soon from T.F.Services and W.N. Richardson and Co, although the price has yet to be set.

Di-Ren showed their new low cost keyboard interface and some of the System Amadeus components. After lowering their profile a few years ago following the success of their Fleet Tactical Command software and Process Controller hardware, Di-Ren have emerged again as an important producer of new QL products.

Miracle Systems were present to talk about their forthcoming new product, the QXL-Gold card. This allows a Super Gold Card to be plugged into an ISA slot on a PC, with the QXL-Gold being used as a bridge between the two sets of hardware. I did not manage to ascertain if a new or revised version of the operating system is required for this to work. We all know I think of the delays and problems with the original QXL card, now happily being used by many PC users to upgrade their machines, so I wish Miracle Systems better luck in bringing this product to market. It will cost about 100 pounds.

Perhaps the highest level of interest was in the new products soon to be available from Qubbesoft P/D. The much-vaunted QL graphics card (now called the Aurora) will soon be a reality. Ron Dunnett went to great pains to point out that it was now WHEN and not IF this device would be launched, and that contrary to commonly held beliefs, a Super Gold Card was not an essential requirement for its use, although several graphics modes could only be used with a Super Gold Card. The lower resolution modes can be used with a standard Gold Card. The

graphics card includes the standard QL modes with greater resolutions, along with modes with higher number of colours, though some of these need a special monitor to be able to display them properly. Although a working prototype had been displayed at a previous workshop, the device was not being demonstrated this time due to problems with one or two chips used. I have seen a specification document for the Qubbesoft/Nasta version of the graphics card and it looks quite impressive, with several high resolution graphics modes, some with additional colours. If Qubbesoft can deliver this device in a reasonable time scale and at a reasonable price, with good support from the software publishers, it will be what we have wanted as QL users for a very long time, and ought to be an overnight success. Ron said he was considering supplying early versions of the graphics cards on loan to software authors in an effort to ensure that good software to support it can be produced as soon as possible. As most new software these days is pointer driven, this means that any necessary changes to the pointer environment itself will have to be implemented quickly so that authors can get cracking with the production of new software. Of course many programs currently available will continue to work in the new environment, but will be unable to take advantage of the enhanced facilities. I am also aware of some software which has included facilities to take advantage of higher resolution graphics modes, for example, but there is currently no way of testing these programs until the card is available. Ron simply smiled and made no comment when I asked him about pricing of the graphics card and replacement motherboard. Qubbesoft's other products are quite reasonably priced, so if this policy is maintained, the price should be within the reach of most QL users. It will be interesting to see what hardware modifications are needed to run this device. If it is a complete replacement motherboard, will it simply be screwed into the existing black QL case and devices such as disk interfaces plugged into the expansion slot as before? Can we add more cards than with the original QL? Will the microdrives become history?

Ron also talked about the forthcoming Super-Duper Gold Card (as he called it), a revised version of the original Super Gold Card. You will be able to plug in PC memory boards to expand the memory at minimal cost, and a few other changes will be made too. Pricing will be fairly aggressive, according to Ron Dunnett. In terms of timescale, he said this may be around nine months away, as the emphasis is currently being put on bringing the graphics card and replacement QL motherboard out first. Meanwhile, the Qubide IDE interface and QPlane expansion unit continue to sell quite well, and Qubbesoft even manage to find time to build the occasional QL system into a PC-style case. The future of the LCD screen driver shown at a previous workshop may be less certain than those of the other devices, as Ron said he doubted he would find time in the near future to bring the device to market. This is a pity, as it could have heralded the possibility of a truly portable QL, so I hope the device will come out, even if from another company, for example.

Quanta announced that almost all of the special batch of Super Gold Cards produced recently had been sold and that consideration was being given to producing yet another batch to satisfy demand which is almost outstripping supply now that Miracle Systems is no longer manufacturing this device. It seems likely that another batch of about 50 Super Gold Cards will be produced as a stop-gap until a revised Super Gold Card becomes available from Qubbesoft in about 9 months time. Other products marketed by Quanta such as the QIMI mouse interface and a few other small items continue to sell steadily and will remain in production while there is a demand for them.

Quo Vadis Design had a large range of QL software on display, although no new products were launched at the show other than upgrades to a few programs. This does not mean that the company is not producing new products - several are under development, but Bruce Nicholls was staying tight-lipped as he does not wish to suffer the embarrassment of announcing new products which are subsequently delayed.

W.N.Richardson and Co. had their usual range of QL accessories along with stocks of the Z88 computer and accessories. Bill Richardson is a major supplier of this useful little notebook computer, and can supply file transfer software for a number of computers, including the QL. The Z88 is a small battery powered machine with built in software for word processing, database and spread-sheet, along with a BASIC interpreter and a few other utilities such as a diary, calculator and terminal program. Its small built in screen and light weight makes it ideal for use away from your base computer. This company will soon be selling a new serial to parallel printer lead for QL users, which should fill the gap in the market now created by Miracle Systems' decision to discontiue production of their equivalent design.

Geoff Wicks had travelled from Amsterdam in The Netherlands to sell his Solvit, Thesaurus and Style Checker programs, collectively referred to in his literature as "Just Words", rather understating the quality of his software. All were written by Geoff himself, and may never have become available commercially had it not been for Steve Johnson of SJPD noticing the quality of the original Solvit program and passing it on to a trader to evaluate for publication. Solvit is now a mature product, and was further enhanced by this show through the addition of an even larger number of language dictionaries. Solvit can now boast of Danish, Swedish and Norwegian word list files in addition to the existing large range of dictionaries. Interestingly, these dictionaries are available as plain text wordlists, so users could for example import the files into spelling checkers for their own use. Languages available in addition to English and the above mentioned ones include German, French, Italian, Dutch (as you would expect from a Dutch supplier!), Spanish and an American English dictionary.

Jochen Merz was kept busy supplying upgrades and answering queries. Although he had no major new products available, he was supplying a major upgrade to SMSQ/E, which includes among other things a new facility to handle events between SBASIC jobs. This new event handling facility is in addition to those events available when using the Window Manager. Up to 8 (9 in some circumstances) events can be defined and programmed in basic. Programs can activate an event to inform a given job that the event has occurred (i.e. send a signal to another program) and the programmer can set up code to handle these situations accordingly. Event handling is a complex subject to learn and master, but potentially a very useful tool when used in the right way. The actual implementation is actually quite easy to use once the concepts are mastered, as extensions are provided to handle events in a simple manner.

Jochen Merz will soon launch a major new emulator based on the SMSQ/E operating system and running on a PC (see, they do have their uses after all!). This emulator is to be called the QPC and will cost about 199 Marks (in other words, similar cost to the SMSQ/E system itself). The emulator is being written by Marcel Kilgus in Germany and work is fairly well advanced at the moment. It currently supports the WIN, FLP, keyboard and mouse drivers, with the serial and parallel port drivers not yet working. Speed when running software is said to be about that of a Gold Card or Mega STE (Atari) when running on a 486 DX4-100, which is rather good for a software based emulator. If this emulator can run on a portable notebook PC with built-in screen, it offers the possibility of truly portable QDOS based computing. At the moment, I use a QXL on a 286 laptop, but this setup is large and heavy compared to the small size of notebook computers available today. QXL cards don't fit into these small notebooks, so a fast software-based emulator like Q-PC would come in very useful here!

Visitors had come to the workshop from all over Britain, and some from further afield. Two QL users came from Norway (who were immediately put to work scrutinising the Norwegian word list mentioned above), one came from Spain, and of course traders from The Netherlands and Germany were also present.

Sadly, attendance at this workshop did not seem to be that high. Recent workshops at other venues have been much better attended. Of those that were there, all seemed to have enjoyed themselves, although the traders did not seem to be too excited at the level of takings this time, unfortunately.

The basement was a hive of activity with many small groups dealing with matters as diverse as genealogy, playing backgammon sorting out a Qubide installation, music composition and porting PC graphics files to the QL. Quanta helpline co-ordinator Dr Basil Lee was in attendance, taking questions and wandering around asking the "experts" for answers. It can be quite fascinating just wandering between these groups at workshops like this, seeing how the experts and less experienced users work together, and just what a wide variety of interesting things get discussed. Many users bring their QL systems along either to work on or to get help, and since so many QL experts attend workshops it is well worth a visit for any reason. Several times I saw all kinds of hardware undergoing open-case surgery. Traders abandoned their stands occasionally to rush to the help of users having problems.

Phil Borman, a former Quanta chairman and author of the Qubide ROM was present and answered a lot of questions from many people on a wide range of subjects. Prolific QL programmer Ian Bruntlett seemed to be hard at work all weekend on his computer, pausing briefly here and there to answer questions.

Derek Stewart showed off a CD-ROM he'd had made, containing the entire Quanta software library, on his QXL system. It is interesting to note

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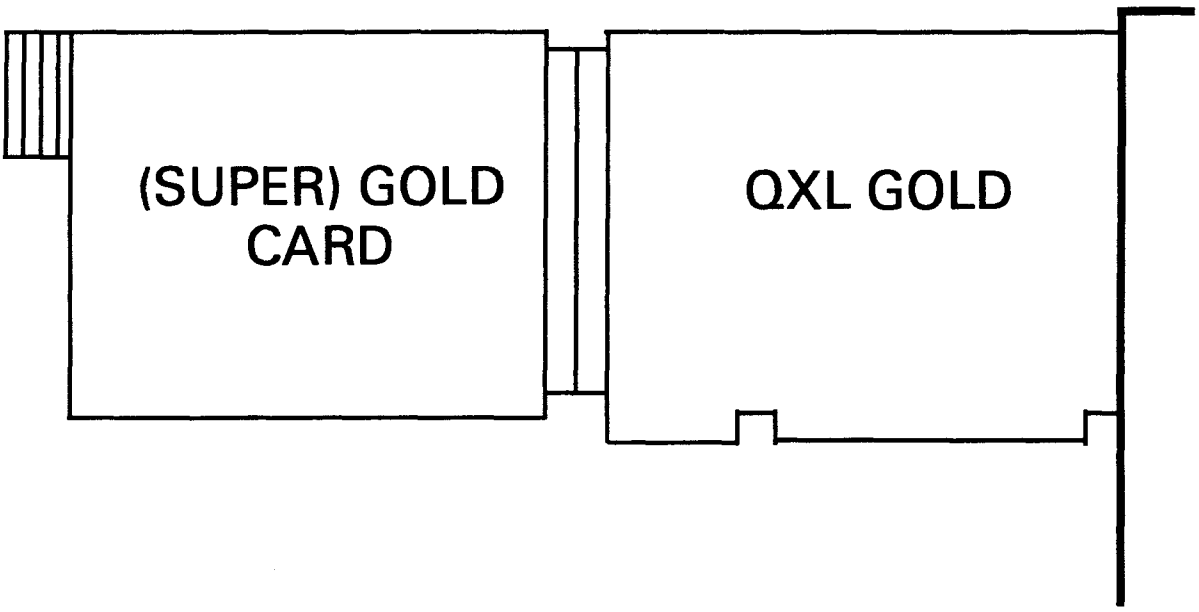

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that the entire Quanta library occupies less storage space than some individual programs on the PC.

Cyril Phillips from London demonstrated a large number of colour graphics printouts he'd made, many of a very high quality indeed. Despite being retired, Cyril is an active QL user who attends many workshops and his undimished enthusiasm and willingness to learn coupled with his friendly and polite manner makes him an excellent role model for many of us. His system includes many of the latest gadgets and software, and with interests from games to graphics he is a good example that it is never too late to take up the QL as a hobby!

All this made for quite an interesting day, enough to persuade ayone that a visit to a Quanta workshop is a great experience.

The first day of the workshop drew to a reluctant close and somewhat later than planned we retired to prepare for the grand dinner that evening. This has become a bit of a tradition at Quanta outings - we gather for a posh meal afterwards to make it even more of a social event, that way we have a good time with our computers and lasting friendships are built up too. This time, the meal was held in the room used by the traders throughout the day, and their equipment was still set up around the edges of the room. I expected that the ongoing QL-related discussions may have caused a mass defection from the dinner tables to the QLs, but the roast Scottish beef held its own ground (and lovely it was too!) and somehow we managed to refrain from using QLs for the rest of the evening.

The Sunday morning brought more visitors and a few new gatherings down in the basement. After lunch we gathered upstairs for the AGM, where the chairman declared he was aware of having a reputation for getting the business done in as short a time as possible and proudly said he thought we'd be out in an hour. Only 50% wrong, Mr Brereton!

The AGM proved to be quite lively with a number of lively issues debated, including Quanta's venture into producing the Super Gold Cards, election of a new committee member (Graham Underwood), discussion about whether or not to admit Z88 computer users to the group, the sensitive issue of committee meetings, their cost and the right of committee members to full and free discussion on important subjects prior to decisions and votes being taken. The Quanta Secretary had to intervene on several occasions to remind members present of certain constitutional matters which affected the subjects concerned. One important matter resolved was to stress the importance of starting a debate through the group's newsletter early after the AGM on any matters where it would be felt that changes to the constitution would be required, so that any proposed changes could be notified to the membership early in the calendar year giving plenty of time before the AGM. The message was clearly "think ahead".

When the AGM was finally closed, the workshop came to an end, although downstairs many members continued to chat and use QLs for a long time afterwards, as often happens at the end of such meetings.

Plans were discussed for workshops later this year, including one at Portishead (near Bristol) and a possible meeting in Scotland, although the exact venue was the topic of some debate. We shall all look forward to future workshops, wherever they are held! Make a point of attending one if you possibly can. If you have never been to a workshop, you have no idea what you are missing!

* Quanta is the independent QL user group, with members worldwide. Membership is by subscription of £14.00 annually (United Kingdom), or £17.00 elsewhere. You get a monthly newsletter, access to a large software library and a helpline to get help to sort out your QL-related enquiries. Membership is open to anyone with an interest in the QL or compatibles (including emulators). I have been a member for several years and can recommend it to all QL users. ■

Quo Vadis Design NEWS

Quo Vadis Design will soon release a new QL program entitled Simple Mailmerge. Simple Mailmerge is a program for combining text files with information from a database so that personalised letters can be created. Any QL text file can be used as the basis of the document to be joined to the database, examples are giving using Quill. The program can be run with or without the Pointer Environment. Background printing is supported and the program also allows for the previewing of the mailmerge before printing. It is an ideal complementary program to Address book & Label printer. The program will cost £10 in the UK (Overseas add £1.00 per order), and is expected to be available very soon, contact Quo Vadis Design for further details.

A new service available from Quo Vadis Design is a custom scanning service. The service provides for scanning black and white images up to a size of

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the QL keyboard membrane shortage.

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Share system resources, link computers, printers and real sound interfaces to a common network where QL's and PC's can talk to each other and share system resources. Up to a staggering 255 network interfaces can be connected.

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Straight forward, **low cost**, simple, fast networking from Di-Ren connects your QL to the Real World!

Ama-Sound Interface

Stop press - Amiga on-line soon

QL Network Prover

All time best seller from Di-Ren, this little box simply plugs in-line with your QL-QL network lead. An LED on the box indicates network operation thus keeping you informed of *what actually is happening!*. Only £4.00

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Control any electrical appliance from this unit. It plugs in-line between your computer (or Amadeus interfaces) and a parallel printer. Two units can be connected in series if no printer attached.

These units each house 6 make/break relays capable of handling DC and AC voltages of up to 240V AC @ 3 Amps and are easily controlled from software. Units are housed in a smart black ABS box, within which connections are made via fused screw terminals.

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MPC Without PSU	£59.95
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- ⇒ Works in background on QL & PC.

New/upgraded features

- ⇒ Access DOS devices, e.g, LPT Ports, Keyboard etc.
- ⇒ Remote SCR and CON type text screen operation on PC display with colour, window and mode support
- ⇒ Up to 8 display screens on the PC can be operational and easily switched between from the QL.
- ⇒ Read PC screen data directly into the QL
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- ⇒ Advanced RS232 Comms handler for PC implemented as a DOS Device Driver (similar to QL SER device drivers).
- ⇒ Connection to PC via Serial links, Amadeus Interlink or any other suitable linking mechanism.

Price: £35.00

Upgrade from version 1 for just £7.00 + return of original masters.

Di-Ren Infolink newsflash

Amadeus System software may now be downloaded directly form our Internet Site.
Check out:
http://www.forthrt.com/~di-ren/amadeus.html

10cm by 15cm into a QL graphics format. The service is ideal for converting logo's into a QL graphics format. The cost is £2.50 for the first image and then 50p per extra image in the UK (Overseas add £1.00 per order). The image can be converted to one of the following formats:

Area Save Bitmap (PIC)
Page Designer 1
Page Designer 2
Page Designer 3
Normal QL screen (SCR)

If the image is larger than would appear on a normal QL screen then the image can also be saved as multiple QL screens or the image can be shrunk to fit onto a normal QL screen. Please specify when ordering which QL format you would like or which program you intend to use the image in.

Quo Vadis Design will be continuing to support the QL/QDOS/SMSQ community for the forseeable future and we are actively involved in producing new, quality software. The new software will all be running under the Pointer Environment and may include the new Prowess system from PROGS. ■

Bruce Nicholls

QL - NOT FOR PROFIT

Amsterdam, The Netherlands - Geoff Wicks

On 1st January 1995 I had no idea that by the end of the year I would have become an established QL trader, advertising in QL publications and selling my software at shows. I stumbled into becoming a trader almost by accident, but have proved it is still possible to start a new QL software house. In a recent article Jochen Merz pleaded for more QL software, and in response to this I decided to write about my experiences.

The story starts in 1991 when Digital Precision released Spellchecker. As an English national living in the Netherlands about half of my word processing is done in Dutch, and I needed a Dutch dictionary in Spellchecker format. I had to write it myself. It was what the Dutch call "Monk's work" - a long, solitary and painstaking task. After putting such an effort into the task, I wanted to do more than spellchecking with my list of Dutch words.

In 1993 there was some correspondence about solving crosswords in the QUANTA Newsletter, which stimulated me to look further than simple crossword solving. It became a programming challenge to write a complete implementation of wild card searching for both missing letters and missing strings. New modules to solve other types of word puzzles and an English word list were added and eventually I sent the programme, SOLVIT-PLUS, to SJPD, the public domain library. Steve Johnson sent it to Dilwyn Jones, who said he would like to publish it commercially. Dilwyn commented that it would need machine code routines and error trapping adding.

Dilwyn took SOLVIT-PLUS apart, put it together again and sent it back to me. I took Dilwyn's code apart and put it together again, and so it continued for a few weeks until we written a commercially viable product, between 18 and 40 times faster than the original (depending on the type of search). Although I am formally the author of the programme, I have always felt that Dilwyn's name should have appeared as well.

SOLVIT-PLUS 2 in the Dilwyn Jones version had a short life. About 6 weeks after launching the programme, Dilwyn decided to close his business. Another sign that the QL was about to die? Not so, maintained Dilwyn:

"Ironically, the closure of DJC might provide a shot in the arm for the QL scene - rather than have just a very small number of major suppliers, more small companies or individuals will be able to afford to promote and sell their own products (given the much lower costs of advertising in IQLR, QReview and Quanta now that QL World is gone) and will give the impression that the QL market is diversifying."

Dilwyn set me thinking. I had spent most of my working life in the social sector as a probation officer and in residential child care. It would be an interesting challenge to undertake some commercial activity. I knew that no one becomes rich by selling QL products, and so my starting point was to decide how much capital I was prepared to risk should the project flop.

After a promising start, SOLVIT-PLUS 2 did flop. I relaunched the programme in April 1995. In the first two months it sold well, but in the next three I sold only one copy, and that at a discount price. It was a bitter disappointment, because I knew, from what Dilwyn and others had told me, that the programme had more potential. One QL trader gave me some good advice. Software always sells badly in the summer and SOLVIT-PLUS 2 had the disadvantage of an unlucky history. The time to sell software is in the autumn. The summer holidays are over, the dark nights are coming and christmas is in sight.

Unfortunately this did not solve my problem. The sales did not justify further advertising, but I needed to advertise to get the sales. To stay in the market I would have to get out a new product very quickly.

About this time George Morris, who uses the QL to study the Greek New Testament, wrote to me asking for help. He needed a search routine to find all occurrences of any word, and then print out the verses of the New Testament in which it occurred. I realised I could adapt some of the SOLVIT-PLUS 2 code to do this. I wrote a few basic routines and whilst writing these I had a sudden inspiration. I had been thinking about writing a sister programme to SOLVIT-PLUS 2 to find such things as synonyms and antonyms. Suddenly everything fitted into place. I had in SOLVIT-PLUS 2 a large list of English words, and there were plenty of reference works I could use to put these into categories. The code I was writing for George would be the code at core of the programme. QL-THESAURUS was conceived!

If I had known what I was letting myself in for, I would never have started work on the thesaurus. But like so many things in life, when you hit the snags in a project, you have already done hours of work, you have a vision of the end result and you are reluctant to turn back. QL-THESAURUS dominated my life for three months. My SOLVIT-PLUS 2 word list was only partly useful. I had not realised how rich in phrases the English language is, and I had to type in far more of the data base that I had expected. I was using Roget as my main reference work and it took me hours of study to follow his line of thinking, to translate his, often obscure, terminology into modern terms and to adapt it to computer use. There were many writes and rewrites. I had to enter 50,000 numbers only to delete 8,000 of these at a later stage.

Looking back, all the effort was worthwhile. Many QL users have been wanting a thesaurus for years. QL-THESAURUS was the key to the success of my venture. Sales have been better than expected and, less than 6 months after its launch, the manual had to be reprinted. It gave a boost to SOLVIT-PLUS 2, which is now reached its minimum target sales.

By the end of 1995 I had a slight trading deficit, but I was easily covering both direct and advertising costs. Keeping me in deficit was the cost of attending QL shows in the UK, but the proceeds from each show were sufficient to finance the next. 1996 has seen the release of a third programme, STYLE-CHECK, the availa-

bility of my software from QUO VADIS and Q BRANCH and a higher advertising profile.

There have been many spin offs from this project, which put the deficit into perspective. I have enjoyed the challenge of doing something new. I have improved my programming skills and intend to improve them still further. I have improved my knowledge of words and writing. I am able to boast in my CV of having my own small company with clients in 7 countries. I have met many interesting people.

I have told this story at some length, because it demonstrates that Dilwyn was right. The QL can still diversify and the small trader can still establish himself on the QL scene. Some of the big name traders may disappear, but others, perhaps smaller, will come to take their place. When Dilwyn Jones Computing closed down, Quo Vadis took over most of his software range. Q Branch has been established and is steadily expanding. On the hardware side think of what Qubbesoft has done to popularise hard disk use and of their plans for 1996, not to mention the latest hardware developments of Di-Ren. When QL World closed other QL publications took its place, and as the present crisis over IQLR demonstrates, QL traders can react quickly to keep QL publications alive.

There is no fortune to be made from the QL, but there is a place for what I would term "Not for profit" traders, especially on the software side. Jochen Merz mentioned programmes like QTPI and QFAX, which are PD, but which are of commercial standard. In my opinion they should have been commercial. We all like something for free, but we value it more if we have paid for it. The QL is more likely to survive if money is circulating within the QL world. When you buy one of my programmes, you are helping to keep QL publications in business, because I have to pay for advertising. When you subscribe to a QL publication, you are helping to keep me and other traders in business, because it is there that you read about our products.

When you pay for a product you are helping to keep standards on the QL scene high. The moment you buy something from me you have legal rights that you would not have from a PD product. It imposes an obligation on me to produce a product of good standard and to remedy any defects. I have to offer an after sales service and listen to what my customers say about my products. If I did not do this, I would not stay in business.

There is a place for more QL software. You may not be able to write a Line Design or a Text87, but then neither would I. All my programmes are compiled basic. I succeeded because I discovered a gap in QL software, and developed a specialist range of software for writers and word lovers. It is no coincidence that I am a freelance writer.

The QL is a good computer for specialist interests. One QL publication once devoted 5 pages to the Greek New Testament. Why? Because there are many ministers of religion who are QL users. Would a PC magazine have done that?

You do not have to make mega-sales to cover the cost of developing specialist software. It may even be worthwhile to produce a programme that sells fewer than 30 copies. You do not charge for your labour and fixed costs are relatively cheap, mainly being determined by the cost of the manual. (If you can keep a secret, I usually recover the development costs of a programme at the show at which I launch it.) The big costs are advertising and attending shows, and, within limits, you can tailor these to suit your needs and ambitions.

In the few days it has taken me to write this article, I have been reorganising my main working disk. It set me thinking. I bought my first QL 10 years ago, and within six months the death of the QL was "imminent". Amstrad had taken Sinclair over. My QL then had 128K, a 7.5MHz processor, a jelly keyboard and microdrives. Five years and many "imminent deaths" later I was using 896K on a "fast" Trump Card, a pc keyboard and DD disk drives. Today I use 3968K Ram, a 24MHz processor and ED disk drives. The software I have on my working disk includes the pointer environment, which is still being developed; Perfection, which dates from 1991; Xchange, which I have updated twice in the past year; QL-Thesaurus dating from 1995; and Style-Check dating from 1996. Not bad for a computer that was on its deathbed 10 years ago!

In the last five years most QL users have invested more money in their computer than in the previous five years. Most will be looking for a return on their investment. We should not be talking about whether or not the QL will stay alive, but how it will evolve. Remember what Dilwyn Jones said:

"Rather than have just a very small number of major suppliers, more small companies or individuals will be able to afford to promote and sell their own products".

So let's have the diversification. Let's have more "not for profit" companies. Let's have more software for specialist interests. Only then can we justly claim "QL for ever". ■

QUANTA

Independent QL Users Group

The Largest Computer Club in Europe.
Now in our 12th Successful Year.
Worldwide Membership.

Formed in 1984, QUANTA (The QL Users ANd Tinkerers Association) has endeavoured to promote the Sinclair QL Computer and more recently its many offsprings but essentially the "QDOS" operating system as devised by Tony Tebby.

There is a large and growing, sophisticated, supply of software which seeks to take advantage of the many benefits offered by QDOS, SMSQ etc., such as Multitasking, a recent arrival on the PC but a part of QDOS for over 10 years, the Pointer Environment and the many advantages of 32 bit computing.

It is the perfect environment for the "Hobbyist" Computer User who will recognise immediately the many advantages once he has been introduced to Quanta and it doesn't matter whether he is biased in favour of Software or Hardware, the scope is enormous.

QUANTA maintains a library of 80 plus disks, mostly full, which is free to members and still growing. We also run "Workshops" so that members can meet one another and a great time is had by all. Pherhaps the greatest achievement QUANTA can boast about is the ease with which you can make friends and obtain help.

To misquote Isaac Newton, "If we have seen anything it is by standing on the shoulders of others"

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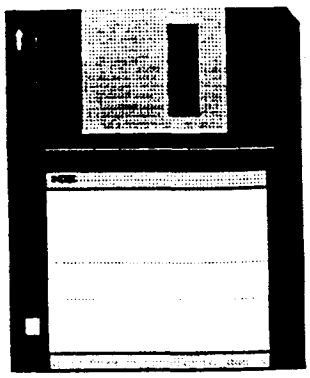

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QL RODENTS

Bangor, Wales - Dilwyn Jones

Recently I was asked to recommend a mouse system for the QL and to describe what was involved in their installation. So I will describe types currently available and a few types you may come across on the second-hand market. There are basically 3 types, all of which work on different principles. None will do everything, though some types are much more useful than others in a modern QL environment. Some trackerball devices will also work in place of a mouse, although these may be a little harder to set up due to complications such as slightly greater power requirements.

A trackerball is a sort of upside down mouse (usually a bit bigger than a mouse) where you control it by using your palm to rotate a ball mounted on top of the device. A trackerball requires less desktop space since it does not need to be moved about (and so no mouse mat either). A mouse also needs a fairly flat surface, otherwise it tends to crawl away of its own accord (annoying!). Trackerballs tend to be a little bit more expensive than mice too, and on a flat surface tend to be a little more susceptible to false pointer movements caused by any vibration or furniture movement, since on a mouse the weight of the mouse itself tends to act as a stabilising force. A mouse is normally more convenient to use.

1. Cursor Emulation

This type of mouse translates the mouse movements into keyboard key presses which are inserted into buffers. The aim of these is to replace program control by cursor arrow key presses and where programs make significant use of the cursor keys (e.g. graphical applications or cursor key controlled menus) these devices can prove quite effective. The disadvantage is that few programs are written specifically to use mice such as these. Where you like to tinker with using these devices to control programs written specifically for your own use, without having to master more complex pointer environment programming techniques, these devices can prove quite useful and certainly adequate for the job. Many cursor emulating mice do so at the INKEY$ rather than KEYROW level, so this makes them unsuitable for controlling pointer driven programs even though the pointer interface allows for cursor key operation, since the pointer interface works down at KEYROW levels. Often, these devices would translate mouse button presses into key presses such as SPACE or ENTER. I know of no cursor key emulating mice currently in production for the QL (apart from the Hessler Serial Mouse system which can be switched to emulate these modes). Second hand cursor key mice, which mostly work by plugging into the joystick sockets on the back of the QL, some taking their power source from the ROM connector or the microdrive expansion connector near the reset button on a QL, can still be bought from second hand equipment suppliers.

1.1 The Smiling Mouse

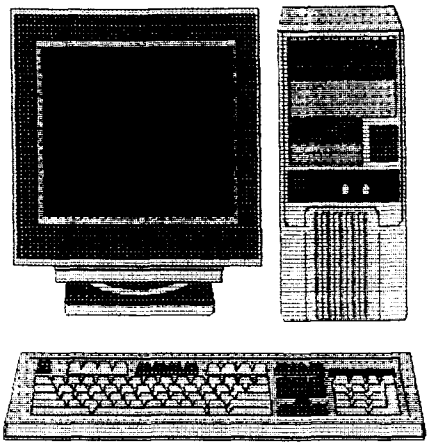
This was originally produced several years ago by a now defunct QL software company, Smiling Software. It consisted of an Atari-style mouse hard wired onto a small uncased circuit board which plugged into the EPROM expansion slot on the back of the QL. A small piece of software containing several BASIC extensions to control and use the mouse in your own programs was supplied. The mouse would not work without this software. It can not be used with modern pointer driven programs (at least with the software version I used), but is quite to easy to use in your own programs from BASIC. on the QL. I believe that at one stage Digital Precision produced an improved or altered driver for use with their Professional Publisher program.

1.2 Mersey Mouse

A fairly recent device, this consisted of a mouse which plugged into the control port on the back of the QL. It emulated the cursor keys, but I have no experience of using this device to know what software it could be used with and so on. It was produced by members of the Merseyside QL users' group in England.

1.3 ABC Mouse

Another cursor key emulating mouse, produced by ABC Electronic of Germany. I know little about this device.



Q.L. Mini Tower Kit

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2. Pointer Environment compatible Mouse Interface

These normally connect to the QL via some sort of internal interface, which was read by the pointer interface. Normally it is not possible for basic programs to read the mouse (unless you buy certain programming tools), although there is plenty of software available nowadays written to be used with these mice - they are the current standard for QL mice. Indeed, nowadays, interfaces are being produced which include connections for these mice. They come in two main types, the QIMI (QL Internal Mouse Interface) compatible types, and the serial mouse types, which generally work by emulating the QIMI interface. With all of these mouse types, it is possible to set the response speed of the pointer to the mouse movement by configuring the pointer interface accordingly (some trial and error required here), and for serial mice it is also possible to configure the driver software to provide additional control.

2.1 The QIMI Interface

This is the original version of this type of mouse system. It was originally produced by Tony Tebby's company, QJump, and is now available from Quanta. It consists of a small circuit board which is inserted inside the QL and a flying lead with a socket into which you plug an Atari-style 2 button mouse. Installation is fairly easy, and the system has been around for long enough for any shortcomings to be weeded out of the system and for plenty of software to be available for use with this system. A limited for of cursor key emulation is possible by holding down the left button of the mouse as it is moved, with the right button acting as an ENTER key. It is probably the most widely used type of QL mouse system today.

2.2 superHermes

This combined keyboard interface, serial mouse interface, serial port 3 interface etc is a fairly recent product from TF Services. A PC-style serial mouse is used and the signals from it are provided to the QL in a similar form to that of the QIMI interface. Compatibility with existing software is of the same order as that of the QIMI interface. A deciding factor may be the cost. The interface alone costs £90.00, which would be expensive just for a mouse interface alone. The interface is actually a low speed serial interface, making this system similar in principle to the Hessler serial mouse system described below.

2.3 Hessler serial Mouse System

The Serial Mouse system was produced by Albin Hessler Software in Germany. This simply consists of some software to allow a PC serial mouse connected to the serial ports of the QL to be used as though it was a QIMI style mouse system. This works with almost all pointer driven software, and there are fixes available for the few programs which fail to work with it. An adaptor lead is required for the serial ports of the QL with British-style connectors. The only real problem with this system is that many users have difficulty setting it up initially, as a fairly complex configuration procedure has to be followed, and when it is not correctly done all that happens is that you get a completely erratic cursor on the screen, often refusing to move out of one corner of the screen and refusing to obey the mouse movements. To be fair, this is not the fault of the mouse system as such, it is down to the way these PC mice work. If you choose a 2 button mouse, there is usually no problem. 3 button mice can be a pain, since many will power up in 2 button mode by default, and can only be used in 3 button mode by remembering to hold down the left hand mouse button as you switch on the QL. The reasons for this are buried in PC history! The middle button on a 3 button mouse generally emulates the ESC key on a QL keyboard. Just to make life difficult, some mice will power up in 3 button mode with some versions of the serial mouse software. Other mice have a switch which enables the mouse to power up in the desired mode. And just to be awkward, some of these mice have a switch which you may think is to switch modes, but in fact the function of this switch is to lock the mouse signals into generating straight vertical or horizontal mouse movements (e.g. for line drawing). All this can make this system a little daunting at first for the less experienced user if difficulties are encountered, though any such problems are quite simply resolved if you know what to do, or know someone with experience of the system.

The main advantage of this system is that it requires no hardware installation. Just plug it into a serial port socket, set up the software and off you go. If you are intimidated by the thought of opening up

your QL to install a circuit board, you may like to consider this system. German users can buy this system direct from Albin Hessler Software or Jochen Merz, while in Britain the system can be purchased from W. N. Richardson & Co. Recent versions of SMSQ/E come complete with a copy of this serial mouse system for use with SMSQ/E on a QL. A final point to beware of is that some serial devices (a very small number) can draw more current from the serial ports than is available, and so cause problems especially if any device connected to the other serial port also draws a large amount of current. In practice, it is rarely a problem. My only experience of the problem is with a serial trackerball device.

The serial mouse can also operate as a cursor emulating mouse in most cases. Flicking between pointer and cursor mode is done with a quick double click on the left mouse button.

2.4 SUPER-Q-BOARD

No longer in production, this disk interface was probably the first to feature a built-in QIMI compatible mouse connector. It was built by a company called Sandy, and a few may still be found second hand on stands at shows, for example.

2.5 Emulator Mouse Access

Systems such as the QXL, ST-QL and certain QDOS emulators allow access to the host system's mouse to control the QDOS/SMSQ pointer within the emulated environment. On the QXL, for example, a standard PC mouse in the COM2 port is used as a source of mouse input. I have little experience of using mice within other emulated environments, so am unable to discuss these here.

3. The "ICE" System

In the early days of the QL, a company called Eidersoft produced the ICE mouse interface. Quite a cool name for a mouse you may think (sorry!). ICE stood for Icon Controlled Environment, which like the more recent pointer interface enabled you to control the computer by moving an on-screen pointer arrow to select courses of action. Although Eidersoft produced a number of applications which could make use of this mouse system, there was little support from other publishers and the system eventually passed into obscurity as the company ceased to advertise their QL products. Quite a number of these devices were produced and they seem to turn up regularly as second hand devices at quite reasonable cost. Unless you have suitable software, this device is not really practical these days. Some of the applications available were actually quite impressive for their time and there are still a number of QL users who make use of this system. It is not compatible with the modern pointer environment software.

So finally we come to decision time. What type of mouse do I recommend?

The answer has to be one of the well supported QIMI-compatible types. Which one depends on whether the thought of opening up your QL and installing an interface worries you more than the thought of a fairly complex software installation.

I have used both a QIMI mouse and serial mouse on both of my systems for quite a while now and find that either system is suitable for my needs. Cost may be a factor, as may be the availability of Atari or PC type mice. Where you can buy a cheap PC serial mouse and you have the serial mouse driver (e.g. with SMSQ/E), and do not mind a bit of trial and error in setting up an unknown mouse type and wiring up a suitable adaptor lead, there can be significant saving in going for the serial mouse system.

On the other hand if the additional facilities of the SuperHermes interface appeal to you, you may prefer to pay the higher cost for that system. The QIMI interface is a no fuss fit-it-and-forget-it system with no extra software required, other than the pointer interface (PTR_GEN) file itself. On the other hand the Serial Mouse system offers a slightly better cursor key emulation option along with the very useful third mouse button emulation of the ESC key, which saves time shifting your attention between the keyboard and mouse. If you can, see all three systems in action before deciding which to buy (e.g. go to a Quanta workshop, or a local group meeting).

At the end of the day, all three systems are different and the choice boils down to which system suits your needs (and price range) best. ■

Q Branch

Portslade, Portslade - Roy Wood

Company Profile

As Q Branch heads towards it's first year in existence I have been asked to write a few lines about company and how it came into being. I have been thinking about doing this for some time partly because I feel that we should not hide behind the annonimity of 'Q' for much longer and partly because we would like to encourage the QL user to communicate with us a bit more.

A Brief History in Type

When Dilwyn Jones ran into personal problems in 1994 and decided to wind up D.J.C. I asked him if he would prefer it if someone took over running the company for a while and handed it back to him a while later. I did this because I did not want to see another QL software supplier go to the wall and, since Dilwyn had been such an important figure in the community for so long I wanted to help in some way.

I was in the process of moving from Hamburg in Germany to the Brighton area and I thought that I may have the time to provide a service until Dilwyn felt that he could return. Dilwyn had, however, already planned to hand over the reins to Bruce Nicholls of Quo Vadis so the immediate problem had been solved but, in the course of speaking to Bob Dyl and Jochen Merz about this I became gradually persuaded that I should start another QL dealership when I had settled in here.

At first I was not too keen on the idea because my normal job (a sound engineer for those of you who do not know - is that a normal job ?) takes me away from home for weeks at a time and I felt that customers would not want to wait to long for their products but, when I arrived here, I made another QL contact that made things a lot easier.

I wrote a letter to Quanta which asked if there was a local user group I could join and, if there was not, was anyone else in the area interested in getting involved in one ? This put me in touch with Steve Hall and, after a few meetings we decided that we could take the idea on together. Steve is doing an honours degree course at Brighton University and, as such, is just as busy as I am but, between the two of us we felt that we could provide enough of a service to make it work.

"So why the mask, stranger ?"

It was not our intention to emulate the Lone Ranger in this but, since my wife already felt that I spent too much time sitting at the QL, I wanted to preserve some of my evening time for my family. I therefore decided to hide behind the annonimity of 'Q' for a while at least. I also quite enjoyed signing he adverts and letters 'Q' and thought it might get a few of you wondering.

For those of you who have worried about the P.O. Box number I would like to put your minds at rest that we are not a 'QL-Sub' style organisation. We took on a box number and a different telephone number because, when I am away from home, I can leave the company completely in the hands of Steve Hall. He can pick up the mail and I can divert the phone to him and my wife is not affected by it at all. This is more efficient for the customer and leads to a quicker turnaround than any other way of operating. Of course it leads to increased expenses as well. So far this has worked out well. When I am not away blasting the ears off unsuspecting concert goers I am often at home and able to answer the telephone and there is, of course, always the answering machine. Some people hate these things but at least you do not get a ringing signal for ages and we do answer if you leave a message. Lets face it we are a small community and no-one can make a living from the QL any more. I would love to be able to do so but, since I supply software from other suppliers, there is a very low profit margin. In a good month I cover the costs but for the two of us this is really more of a labour of love than a business. Hi-Ho Silver !

So What Are We Trying to Do ?

Well the main thing that we want to achieve is to keep the QL, or at least the spirit of QDOS, alive. Both Steve and I have been long time QL users and, quite frankly, have little time for other computers. We still think that the QL does things more efficiently and economically than most of the other systems that are available and neither of us hanker for the flashy systems that sit on the shelves at Dixons or the other computer stores. If the QL had had the time and money lavished on it that MS-DOS did then the system would have been a world beater but then that is all history and we have to make the best of what we have.

Q Branch

Feeling out on a limb ?
Reach out for Q Branch
Suppliers of Quality QDOS / SMSQware

P.O. Box 7
Portslade
East Sussex
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Tel. 01273-386030
Fax 01273-381577

QD 8 : the text editor	£ 58.00	QBASIC	£ 23.00
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Now Available:
ProWeSS : the new windowing system from PROGS
£ 50.00

Q Branch are looking for new programs to add to their catalogue.

If you have any programs you would like us to consider please send them to the above address

UTILITIES

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QPAC 1	£ 20.00	QPAC 2	£ 40.00
QTYP 2 Spell Checker	£ 30.00	Mailmerge	£ 10.00
Cueshell 2 File Utility	£ 40.00	pfLIST	£ 24.00
Disk Mate 5 File Utility	£ 37.00	pfDATA	£ 24.00
QSpread spreadsheet	£ 77.00	Solvit plus 2	£ 15.00
Style Checker	£ 15.00	Thesaurus	£ 15.00

Writers Pack (Thesaurus and Style Checker) £ 25.00
QL Words (Solvit and Thesaurus) £ 25.00
Lexicographer's Suite (All three programs) £ 35.00

QLerk Archive accounts	£ 25.00	QLerk printed manual	£ 20.00
DBEasy archive progs	£ 18.00	DB Progs	£ 14.00
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LINEDesign : the program that made this ad. £ 100.00

SMSQ/E

SMSQ/E for the folowing systems:

Atari version (without the QJump C, D or E level drivers)	£ 90.00
Atari version (including drivers)	£ 112.00
(The above programs need the QVME card to run)	
Atari monochrome screen version	£ 134.00
Gold or Super Gold Card version	£ 90.00
QXL version	£ 90.00
All three versions at a budget price	£ 180.00

Games

Arcanoids	£ 17.00	Diamonds	£ 17.00
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Lonely Joker 2	£ 28.00	Mine Field	£ 19.00
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Bob's Pipes	£ 20.00		

Albin Hessler's Serial Mouse Software
Software and black mouse £ 40.00

Don't forget:
full details of all these programs can be found in our catalogue just send a stamped addressed A5 envelope to the above address.

Coming soon :
The whole catalogue on disk with screen dumps !

Being realistic about it we are aware that there is no way that we can get people to desert their PCs and return to the QL or to any of the many emulators that exist. What we would like to see is some of the old users, who had to go to other systems for one reason or another, taking advantage of the advances of recent years and using the QL for the fun that it can give.

I run two main systems a Super Gold Card QL and an Epson 286 with a QXL (you probably know all this from before) and they do all of Q Branch's work form accounting to writing invoices to designing the catalogues.

We are actively trying to encourage more people to write and publish software and we believe that there are people who produce programs at home, for their own use, that could easily be made available to a wider public. The motivation here is not, strangely enough, purely monetary. At the moment Q Branch runs at a loss because advertising and operating costs in general overtake the meagre profit that we make on selling the programs. I would like to be able to break even on the process and, in order to do that, I need to get some new programs into the catalogue. After all how many word processors, spreadsheets and file handling programs do you really need to buy ?

Back to The Future.

One of our current projects is trying to find good, efficient software that existed in the heyday of the QL but has now ceased to be available. This is a difficult task at the best of times because the companies that originally published the programs have long ceased trading and the writers have moved on to other machines. When you can trace the authors or publishers they often say that the files are lost or erased, they no longer own a QL so they cannot tell you if they have a particular program, or they are just not interested in getting involved any more. Some are better than others, however.

Richard Howe of ARK (Applied Research Kernel) was very helpful when I tracked him down and turned over his files to us. He is no longer writing for the QL but we have spent a few hours on the telephone talking about the path that the machine has taken since he left the scene and he would be more interested were it not for the pressures of making a living and the hours that he has to spent producing software for other systems.

Q Branch can now offer for sale the remarkable Master Spy editor that was way ahead of its time when it was released in 1988 and is faster than light on a Super Gold Card or QXL.

This is one path we would really like to pursue and we would welcome feedback from other QL users as to what programs they would like to see revived. If you know the addresses of any of the old QL writers then please let us know.

Epilogue

So now we are out of the shadows you have our pictures [sorry, picture did not reach us in time, ED.], phone numbers, names and address. Get in touch. Give us some suggestions on how we can keep this thing called the QL community running and, above all, send us your programs so we can sell them. SMSQ/E has made the QL philosophy so much more viable now that you can run it on an Atari, QXL or even (when the QPC finally arrives) a PC and the new graphics card/motherboard that will arrive soon will give us the long-awaited graphics improvements on our native machines. I saw the prototype of this card being demonstrated by the Qubbesoft / Nastasic team at the Clevedon workshop in March and it is already looking brilliant.

At this point Q Branch would like to make a short apology to anyone who wanted to see us at the Boston show or the Quanta AGM. Unfortunately we are both very busy at this time and will not be able to get to either event. I will be away in Germany for a lot of April and May and Steve is approaching his exams and cannot spare the weekends. Sorry. We will, however, be at as many other meetings as we possibly can.

Our Messages:

Come to a few workshops. Join Quanta if you have not already done so. Have a browse through the P.D. libraries - there is a whole load of good stuff there - and keep on QLing ! ■

TF Services on the Internet

Last minute news!
TF Services' E-Mail address is:
tony@firshman.demon.co.uk

Hints on using QTPI and QBOX/PBOX

Duisburg, Germany - Jochen Merz

If you have up-/download problems, try the following settings:
`SER_BUFF 2000,2000` (SMSQ/E only)
or, if you use SER2, use
`SER_BUFF 2,2000,2000` - this will get rid of timeout errors when uploading.
The problem is that most Protocols do not know about buffers. For example, if your connect is 14400 and you upload 200kBytes with dynamic buffering, the data is sent in a few seconds. It is not acutally sent, because it is much slower (at 14400 baud) sent via modem. However, the program "thinks" the data has gone and starts counting. As 200kBytes cannot be sent in 10 seconds or so at 14400 baud, it will time out. Silly! The program knows about the connection speed, so it should better calculate the timeout based on the best possible rate and then add some time to allow for errors etc. We're not living in a perfect world...
One other common problem seems to be that people forget to set the modem to "Ignore DTR". It may be different on various modems, but all the modems I came across use

`AT&D0`
to make the modem ignore DTR. Otherwise, during long up- or downloads, the modem will probably hang up (usually after multiples of 8k or 32k or so, depending on the mailbox called).

If you have character faults, make sure that TRA is not activated (German, French etc...) - serial data bytes and checksums MUST NOT be translated!

It is quite easy to turn TRA for the QTPI channel only off, but you need SMSQ/E to do this. In the "connection" menu, you find at the very bottom "comm device". You can enter here whatever you like, e.g. SER3D, SER2ID. The settings in the upper part of the menu are completely ignored! This is the only way to get access to SER3 and SER4 (don't PATCH the upper settings!), and the "D" parameter tells SMSQ/E it is a Direct communications, no translate (if active) should happen.

BEGINNERS' CORNER

Bangor, United Kingdom - Dilwyn Jones

Here are some frequently asked questions from beginners about the QL. I have written them as a series of questions and answers, and tried to keep them as short as possible.

Q. What is a 'Toolkit'?
A. It is a piece of software, which might be on disk, microdrive cartridge or on a plug-in ROM chip, which usually adds more 'words' (or 'extensions) to the list of words understood by the BASIC interpreter. It may add other facilities as well. Probably the best known example is Toolkit 2 by Tony Tebby - this toolkit is built into most modern disk interfaces.

Q. How can I add a floppy disk system to my QL?
A. You need to add a small board called a Disk Interface. This plugs into the expansion slot at the left side of the QL. Most come complete with extra memory for the QL as well. The cable from the disk drive plugs into this board. You can save to, load from and generally use the floppy disk system in much the same way as the microdrives, but usually much faster. They have the device name FLP1_ or FLP2_ in place of MDV1_ or MDV2_. Disks are cheaper than microdrive cartridges, and can hold many times as much data. The best interface is the Super Gold Card, available from Quanta. Many other types are available (often second hand) from suppliers like Qubbesoft P/D. The QL traders will be able to advise on which is best for your needs.

Q. What is a ramdisk?
A. This is similar to a floppy disk or microdrive cartridge, but exists only in the computer's memory, so the contents are lost when you switch off the QL. You can save to, copy to and from, and load from ramdisks like you can from other devices. Ramdisks are very useful for holding temporary files. For example, if you wish to make a copy of a floppy disk, you can copy all the files into a ramdisk, then copy the files again onto another disk. Ramdisks have device names like any other QL devices, with drives being called RAM1_, RAM2_ etc. The ramdisk facility is built into many modern interfaces. Their manuals describe how to use ramdisks.

Q. How can I connect a printer to the QL?
A. Questions about printers are asked all the time, it is one of the hardest subjects for a beginner to master! If your printer has a serial (RS232) interface, you just need a suitably wired cable (wiring details in the QL manual), or try TF Services for a ready-made cable. If your printer has a Centronics-compatible (also called a Parallel) interface, there are two possible methods. If your disk interface has a parallel interface (e.g. Super Gold Card) then you only need a suitably wired lead. If, however, your printer has a parallel printer interface, and your QL does not, you will need to connect the printer to the serial port using a device called a Serial To Parallel Printer Interface lead. This is simply a cable with a little bit of electronics at one end to connect one type of interface to another. They cost between 20 and 30 pounds (cheaper than getting an interface for the printer itself) - contact Miracle Systems, W.N.Richardson & Co, or TF Services.

Q. What is a 'BOOT' file?
A. This does not mean that you should kick the QL with your boots if something goes wrong, but rather it is a mechanism for starting programs automatically. The word BOOT in this respect means starting automatically. A file called FLP1_BOOT (or WIN1_BOOT on hard disk systems) on a floppy disk will start up automatically if found by the system immediately after resetting the QL, or just after it has been switched on.

Q. Can you explain the "pointer environment" in simple words?
A. This is difficult. The subject itself is not difficult, indeed when correctly used it tends to make life easier! The troble is that it is a vast subject, but you can start to learn it in several ways. The pointer environment provides a moveable pointing shape (usually an arrow) on the screen. This can be moved by using the cursor arrow keys (or a mouse if you have one fitted) until it is over an item on the screen you wish to select, then you press SPACE or ENTER (or a mouse button) to select the item. This means that program menus or lists can be controlled more simply than by having to remember endless lists of keys to press. This system also allows for screen pictures to be saved and displayed automatically when you switch from one program to another. For example, if you have a word processor, spreadsheet and database program in use at the same time, you can press CTRL C (hold down the CTRL key, tap the C key, and finally release the CTRL key) to switch from one program to another.

The display of the program concerned pops up automatically on the screen. It sounds rather complex, and to be fair it does take a little while to get used to it, but most people find that once mastered, they find it difficult to do without this system! Most new QL programs written now use this system and it is the way forward for the QL. Many QL users cut their teeth on the pointer environment by purchasing a copy of QPAC2, available from most software traders. There is a lot to learn, but it is well worth the effort.

Q. Do you know of any clubs for QL users?
A. Quanta is the largest QL club. They have a regular newsletter and organise shows for the QL from time to time. Contact their membership secretary, Bill Newell, 213 Manor Road, Benfleet, Essex, SS7 4JD, England. Quanta also encourages members to form local sub-groups, so there may be one close to you! Club QL International produces disk-based QL magazines written by the members. Contact Mike Kenneally, 6 Barnaby Road, Poynton, Cheshire, SK12 1LR, England.

Q. I have a corrupted floppy disk. Are there any programs which can help me to read the data on it?
A. There are a few disk recovery programs available from public domain software libraries (e.g. Rettunge and ResQL). A commercial program called Ergon Floppy Disk Utilities is also available from Ergon Development in Italy and Quo Vadis Design in England.

Q. Can I run programs from other computers on the QL?
A. Not directly, no. But there are a few programs called emulators available which run on the QL and make it pretend to be another computer. I know of emulators for PC DOS based programs (contact Digital Precision Ltd) and emulators to run ZX81 (a shareware program called ZXtricator) and Spectrum based programs (the ZM programs, from Ergon Development and Quo Vadis Design). There is also an emulator to allow you to run some CP/M software on the QL (contact Digital Precision Ltd).

Q. My screen dump software prints circles squashed as ellipses. Why does this happen?
A. This is a common problem. Screen dumps usually have to be written in a very general way to work with as many printers as possible. Usually the problem comes down to the fact that the shape of a dot on a printer is not quite the same as that of a matching dot on the screen, so a small difference in dot sizes one way will mount up into quite a change in width along a whole line. Some software tries t compensate for the error by working out where to insert a few extra dots to artificially stretch the picture printed to try to make it a true circle once more. This can slow down a dump quite a lot, and runs the risk that it may only work properly on a few makes of printer. Some software allows you to select a printer graphics mode on printing. You should experiment a little to see which produces best results. On Epson-compatible dot matrix printers, for example, using a graphics mode called CRT usually produces best results. Some printers offer two such modes, and if so, CRT2 mode will produce best results. Configuring printer drivers is a complex subject and you should ensure you have thoroughly read and understood the instructions before attempting it. ■

CueShell Review

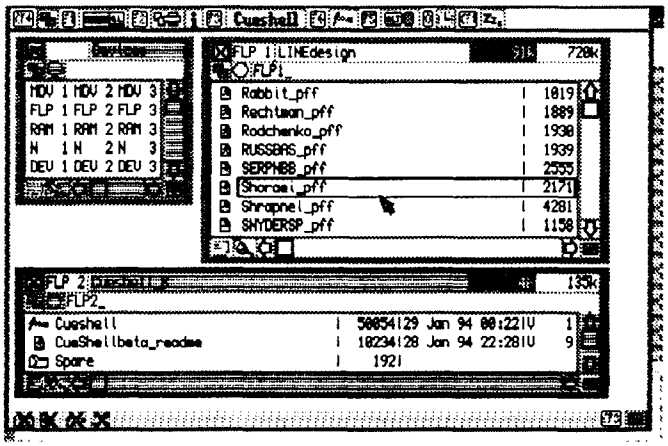
England - Derek Fish

Cueshell from Albin Hessler Software is billed as "a desktop program intended to perform some everyday tasks in the computer in an easy way". It works within the Pointer Environment and provides a pointer driven interface to control basic operations like copying files, starting programs etc.

The program comes with a small, 20 pages or so, A5 manual. The manual consists of two parts; the bulk of the manual is made up of the Cueshell instructions while the rest is devoted to a description, often detailed, of the Pointer Interface. The manual is easy to follow and is presented very well with the copious use of actual screen shots. The descriptions of the actions available are described very well and do not assume you know all about the Pointer Environment or QDOS. As an example the description given to a HIT as defined by the Pointer Interface is given as "HIT is generated when the left mouse button is pressed. As the Pointer Environment allows keyboard control as well, pressing the SPACE bar also generates a HIT. A HIT means that the related program option is selected, which is more than simply being available. A selected item is normally marked in a highlighted colour or with a graphical object in an obviously different shape. A HIT normally does not lead to an action, only when a pure selection obviously does make no sense or if the related action is easily reversible.". Albin Hessler has obviously listened to the criticisms that

say the Pointer Interface is difficult to master and has produced a manual which starts off with the basics.

Starting the program is simplicity itself either type in EX FLP1_Cueshell if you have the Pointer Environment loaded else type in LRUN FLP1_BOOT as explained in the Quick Start section of the manual. A strange omission before this section is the usual "IT IS ADVISABLE TO MAKE A BACKUP OF THE PROGRAM FIRST" warning. I know most people rigourously take backups first but it's always useful to be prompted before any damage can be done. It is in the License Agreement section but it is nice to see it in Big Bold letters.



Once loaded the main window appears as per the screen shot on this page. Most of the items across the top of the main window are called menu items, the others are standard Pointer Interface control symbols (all explained in the manual of course). Pressing the space bar or left button of a mouse, a HIT, on these menu items usually brings up another menu selection. The menu items are :

SYSTEM CONTROL

(looking like a QL) - This allows you to change the keyboard, mouse and clock settings of your system. The options given range from changing the autorepeat delay of your keyboard to changing the year of the QLs clock. In each of the three options a submenu is given on the screen for you to choose your settings. Changing the settings is a simple matter of selecting the item you wish to change and then either press the arrows either side of the value to add or take away from the number or type in the actual number you want. To action the changes you just need to highlight the "DO set values now" option. These changes are, however, only temporary and remain in effect until the QL is reset or powered off. If you wish the parameters to remain the same everytime you boot-up with Cueshell you can save these values permanently with the program using the "Save values with configuration" option, although the clock settings are excluded for obvious reasons.

WINDOWS CONTROL

(looking like outlines of windows on the screen) - This shows a list of all the catalogue windows (explained below) that are open. You then have the option of either closing them all, closing one or selecting one.

INFO

(looking like an i) - This shows you the largest free space in memory.

CUESHELL

(looking like CUESHELL, are you getting the idea ?) - This allows various options in particular the options to Quit Cueshell, Create a new directory, change the sort order and configure the program.

JOBS LIST

(looking like, I think, an ink quill pen) - This shows you all the jobs that are present and allows you to remove, change the priority or pick a job.

HOTKEYS LIST

(looking like an ALT key) - This option lists all the hotkeys (a hotkey is a key pressed together with the ALT key defined to do a special user defined function) that have been set up within your system. It allows you to action a hotkey, remove a hotkey or turn it off or on. This is very useful if you can never remember which hot keys you have set up.

CLOCK

(looking like, would you believe it, a clock) - This shows the actual system date and time.

All the above are useful utilities in their own right but the main purpose of Cueshell is the easy management of devices and files.

This is achieved through the use of a Device window and Catalogue windows. When Cueshell is initially loaded, before being configured, all that is shown on the screen is the main Cueshell window together with the Device window.

The Device window contains all the device names available for use ranging from MDV1_ to DEV8_. HITting a device name (pressing the space bar or left mouse button) changes the pointer from the normal arrow to a moving image showing a file

being transferred between two disks. This is called the copy sprite. You can then move the pointer to over another device name or to the bottom line of the Cueshell main window, pressing the right button or enter allows the action to be started. If the pointer was on a device name then the options to either update (only files which exists on the destination device are copied) or backup (all files are completely copied to the destination) are given. An additional option to move is given if the destination device is the same as the source. Once you have highlighted which option you would like and said it is OK to proceed the action is completed. If the pointer was on the bottom line of the Cueshell main window ,called the delete bar, then two additional options are given to either format the device or delete its contents.

The catalogue windows are accessed by DOing a device name. This brings up another window showing the files and directories that exist on the device together with the file length, the update date and the version number. From this window you are given the opportunity to rename a file simply by typing in its new name, show the contents of a directory , copy and delete files or directories, sort the files by name, time, type or size (up to four levels can be specified such as sort by name first then by type), view files and execute files. The execute files menu is capable of executing Psion programs, programs which require Guardian windows (older programs which write directly to the screen memory), SuperBasic programs which can be a QLiberator_sav file a SuperBasic program or a SuperBasic extension file normally loaded with LRESPR. All Cueshells windows can be resized and if you save the configuration the next time cueshell is used it will present you with the same window structure, providing you have the same devices attached.

As you can see from the above Cueshell comes with most of the options needed for your average QL user, if there is such a person. Most of the commands are all presented graphically and are very easy to control with a mouse and a keyboard. If you are a keyboardphobe and use the Pointer Interface then this package is a must. Even if you use, or struggle, with QPAC2 I would say this compliments rather than competes with an already excellent package.

Cueshell can be obtained from Quo Vadis Design, Jochen Merz, QBranch or Albin Hessler Software. ■

DISA 3

New version with many new features now available

by Albin Hessler

The new DISA release no 3 is available since April 1996.
The job starts in the known layout and offers the same functions for analysing an assembler code interactively. Inside there are some very interesting new features. By these in most cases it is possible to analyse a piece of code without printing it, especially when a large screen resolution is available, as with a QXL, QPC or Atari:
It is now possible to jump to a location pointed to by a label, with a single mouse click, and to jump to the next location from there, etc.. Naturally you come back again too. This is fantastic for analysing subroutines and data areas.
You can search for assembler instructions or even only parts of a command line. The search function uses the same syntax as in the disassembly, e.g. searching for "moveq #0,d0" will find exactly all these. "^, (a6)" will find all address-register a6 indirect instructions. The search function is very flexible, as the instruction key word and the argument are searched for separately.

DISA 3 knows all Motorola MC68020 and MC68030 instructions. Compared with the MC – 68000 these are:
– 12 additional instruction key words
– 9 different bit field commands
– the extension from 16 to 32/64-bit instructions
– and all new addressing modes

The user has the choice between selecting the 68000 or 68020/68030 instruction set. Thus a very important feature for pure 68000-code, finding illegal instructions, is still working.
The comments of the disassembly can be QL (old Sinclair QDOS syntax) or SMSQ (new Tony Tebby syntax for all SMSQ systems).
Principally DISA can disassemble any 680xx code, e.g. actually it knows all A-Line Primitives of the multi-tasking system PDOS and their symbolic names.

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SMSQ/E - The newest and most extensive operating system ever for the QL. Has Pointer Environment, SBASIC, and Tool Kit 2 built in. Three versions available: QL, QXL, Atari-QL Emulator. Price $147 each.

QPLANE - The Powered Back Plane for the QL is in stock. It utilizes a PC Power Supply Unit to help you place your QL motherboard, drive interface, Qubide, etc. inside a PC tower case or full sized desk top case. Add a Super Hermes, Falkenberg Keyboard Interface, or one of our new Di-Ren Keyboard Interfaces plus an IBM style keyboard and it is set to go. Qplane price $52.

SPECIAL COMBO of QUBIDE and QPLANE - This includes the Qubide IDE/AT hard drive interface and the Qplane for only $160. Give your QL an update and power as a personal computer!

DI-REN QL KEYBOARD INTERFACES - This will allow you to use a 101 or 102 key AT keyboard (name brand is recommended) with your QL. This is a very small size board and is easily fitted. It translates most keys to QL format and offers keyboard record/playback facilities. The price is $55.

AMADEUS QL CONTROLLER - Designed to link the Sinclair QL to the Amadeus system. This device connects to the QL's ROM port thus enabling high speed communications. Comes with a through port allowing other devices using this to continue to function. The price is $70.

AMADEUS AMA-SOUND - Record and play back sounds via your computer. This device employs 12 bit sampling and gives the high quality audio of the ADPCM algorithim. Recorded files may be stored, edited and replayed. Includes all hardware and software. Sample data is in 4 bit packages. All data can be transferred between different types of computers. 3 bit sampling may also be employed. The price for this great innovation is $84.

QL KEYBOARD MEMBRANES - Replacement membranes for $18.

QL POWER SUPPLIES - Get a backup or replacement for $16 while they are still available. These are 110 volt. The supply is limited.

MECHANICAL AFFINITY CLIPART SET - The QL worlds largest clipart set, compressed on ten 720K or five 1.44 disks for only $38.

The DISA job itself has some additional new features:
- Config Level 02 is decoded in a disassembly and the DISA job itself uses it in it's config block
- the actual DISA status is saved and restored
- Index files are loaded automatically (if present)
- the assembler syntax is widely configurable to suit the users assembler program (even some assembler errors are known)
- large screen resolutions are used (QXL, QPC and Atari)
- colours are configurable

Some readers might be interested in a short DISA history:

The first DISA release appeared in 1990. It was the first disassembler for the QL completely designed to run under the pointer environment and mainly intended to be controlled with a mouse. DISA was especially designed to offer an easy way to generate a working (i.e. ready to be used with an assembler program) source code listing from a code file. This was achieved by analysing the code interactively. As DISA always disassembles only a small portion of the code the memory needs are very low. The information about the code is stored in an index file where only the attributes are saved.
This worked very fine and DISA was further developed and enhanced in the following years. By the time more and more structures (e.g. job headers, jump tables, SuperBASIC init-tables, menu definitions, ...) are recognised automatically by DISA. Many users sent useful hints.

DISA 2 came out in 1994. As DISA was mainly used for debugging and analysing code, useful functions for these special purposes where added. With DISA 2 searching for a line number, searching for text strings and hex-numbers became possible. Also all usages of a certain label can be found. It became also possible to jump to all locations with illegal instructions, i.e. it is very easy to find unrecognised data areas now. Even finding instructions with address mode "absolute address" is possible.
DISA 2 already knew the move control register instruction from the 68020 command set "movec cacr", which was used with the SuperGold- and QXL-cards. This was very helpful in debugging C-compiled programs.

DISA 3 will come with a reprinted enhanced manual. DISA 3 and upgrades from previous versions are available from Jochen Merz Software. ■

QPC

A dream becomes true

by Albin Hessler

Did you once dream of a portable QL? Now you can have it and even more. If you have access to at least a 486-PC, desktop or portable, then you can make it a QL by magic, at any place at any time. This is not a joke. You simply need a single disk with the QPC software emulator, and you can have it soon. It will be a professional solution coming together with the latest SMSQ/E version distributed by Jochen Merz.
I have just (in the beginning of May 96) tested the latest pre-release version, and it works fantastically. That's all. You want more information, OK.

What is QPC?

QPC is a pure software emulator that emulates a 68000 QL on a PC.
The minimum hardware requirements are:
* 486 SX-25
* 2MB RAM
* EGA Graphics
* DOS 6.0 (previous versions may also work)

The recommended hardware is
* 486 DX/4-100 or better
* 8 MB RAM
* SVGA Graphics

There is absolutely no chance to run the emulator on a 386 or even below, now and in the future. Some essential features of the 486 are necessary to make the emulator work. Also for speed reasons a 386 would make no sense.
The QPC software is programmed in pure Intel assembler. The author, Marcel Kilgus, has worked about 3 years on it. The emulation is achieved by a very ingenious and tricky memory control, e.g. usage of cache memory, code analysing, etc...
The emulator must run in real mode and cannot run in protected mode. Therefore it does not

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run together with programs like EMM386 or Windows in enhanced mode. HIMEM.SYS support is implemented to make use of smartdrive.

QPC is the first emulator whatsoever I know which runs faster than the original, though, I admit, it might be a little bit unfair to compare our good old 68008/8 MHz QL with a 486/100 MHz PC. It is difficult to give absolute speed comparisons. Unfortunately I do not have a working standard QL to compare with, but I assume the QPC on a 486/100 MHz or a Pentium 75 is about as fast as a GoldCard. I tested the QPC on both of these systems and my impression was that there was no great difference in speed. The reason might be that the emulator code is very processor intensive, i.e. the overall speed is mainly determined by the processor speed.

QPC estimated speed range, depending on the PC speed:

QL < GoldCard < **QPC** < SuperGoldCard < QXL

I made some tests on the following PC configurations:

My "normal QL" is a 2MB QXL card built into a quite old 286/10 MHz machine with no harddisk. It boots from a Novell-Server and also the complete QXL software and the QXL-harddisks (WIN1_,...) reside in a subdirectory of a server volume.

The test machine for the QPC is a Pentium 75 that is also logged on to the Novell-Server before QPC is startet. Mapping the same subdirectories to the same drives as in the above QXL-workstation gives me access to exactly the same devices.

That means the QPC starts with the same boot file from WIN1_ and all the software I can run, all the files I can access come from physically the same location.

Tests:

System boot (load many extensions and start Cueshell with one large directory)
QXL 20 seconds QPC 34 seconds

Link Cueshell with the GST-Linker (about 100 relocatable modules with quite a lot of external references, several libraries to scan).
QXL 8 seconds QPC 35 seconds
(Before I had the QXL, I used to work on my old standard QL with a Sandy Q-Board and two floppy drives. Then linking Cueshell took several minutes.)

Redraw Cueshell screen with 16 catalogue windows open:
QXL 2 seconds QPC 4 seconds

QPC features:

* Operating system SMSQ/E
* Harddisk support WIN1_ to WIN8_ (i.e. QXL.WIN on drives C: to J:) as with QXL
* HD Floppy support FLP1_ and FLP2_ (QDOS/SMSQ and MSDOS format)
* LPT1 mapped onto PAR
* COM1/COM2 mapped onto SER1/SER2 (up to 19200 Baud with 16550 chips)
* Memory configurable 1MB to 16 MB
* Mouse support
* PC-Speaker support
* screen resolution configurable 512x256, 640x350, 640x480 and 800x600

Most of the above features are already working. Only full usage of the SER Devices and formatting disks is not possible with the actual prerelease version. The author is working on it and I am quite sure that when you read this QPC will be ready to go.

On the meeting in Eindhoven April 13th, where Marcel showed the first working version of QPC with SMSQ, Tony Tebby said: " I did not believe that it would ever be working".

I only had a dream...
Sometimes dreams become true!
■

Di-Ren has moved

The new address is:
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What's coming next?

Ah, this is really a good question! First of all, it mainly depends on YOU! Please send your articles, reviews, problems, tips ... whatever you think might interest other people who use the QL, QDOS or SMSQ and related topics (i.e. linking a QL to a PSION Series 3, to a Z88 ...).

The next issue will contain:

- SERNET (link two or more machines together [QLs, ATARIs, PC's running SMSQ/E] and SERNET will provide the same facilities as MidiNet or TK2 Network but at the highest possible Baud rate!
- Hopefully all the articles which should have gone into the current issue (authors, please send your articles as soon as possible!).
- More hardware news.
- More software news (e.g. SBASIC Interface for ProWesS).
- More news on QPC.
- A report about the QL show in the U.S.A.
- New software from W. Lenerz (Author of FiFi and WinEd) if ready.
- New software from J. Hassler (Author of DISA, FLP/RAM Level 2...) if ready.
- More Programs & Listings (BASIC ...).
- Another very interesting Tony Tebby article.

Above are just a few of the very many reasons to subscribe for **QL *Today*** - why not do it now if you haven't already done it?

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